

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

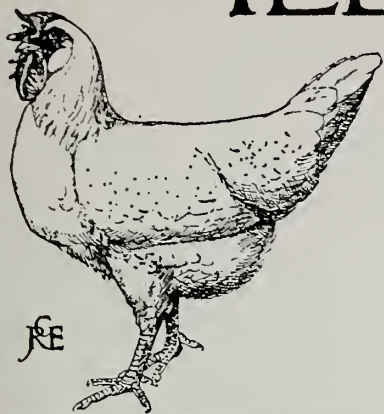


Black Orpington Cockerel.

FIRST AND SPECIAL, BIRMINGHAM, MANCHESTER,
HAYWARD'S HEATH; FIRST, SUTTON COLDFIELD, 1909.

Bred by and the Property of Mr. W. M. Bell.

THE ILLUSTRATED POULTRY RECORD



VOL. III.—No. 3.

December 1, 1910.

Monthly Sixpence Net.

DIARY OF THE MONTH.

EDITORIAL NOTICES.

Telegrams: "CHICKENDOM." Telephone: 1999 P.O. CITY.

ENTERED AT STATIONERS' HALL.

The Editor will be glad to consider any MSS., photographs, or sketches submitted to him, but they should be accompanied by stamped addressed envelopes for return if unsuitable. In case of loss or injury he cannot hold himself responsible for MSS., photographs, or sketches, and publication in the ILLUSTRATED POULTRY RECORD can alone be taken as evidence of acceptance. The name and address of the owner should be placed on the back of all pictures and MSS. All rights of reproduction and translation are reserved.

The Editor will be glad to hear from readers on any Poultry Topics, and all Queries addressed to the paper will be answered by experts in the several departments. The desire is to help those who are in difficulty regarding the management of their poultry, and accordingly no charge for answering such queries is made.

The Annual Subscription to the ILLUSTRATED POULTRY RECORD at home and abroad is 8s., including postage, except to Canada, in which case it is 7s. Cheques and P.O.O.'s should be made payable to Brown, Dobson, and Co., Limited.

The ILLUSTRATED POULTRY RECORD is published on the first of every month. Should readers experience any difficulty in securing their copies promptly they are requested to communicate immediately with the Editor. The latest date for receiving advertisements is the 20th of the month preceding date of issue.

The utmost care is exercised to exclude all advertisements of a doubtful character. If any reader has substantial grounds for complaint against an advertiser he is requested to communicate at once with the Editor.

The Crystal Palace Show.

Despite the reduced entry in the poultry section, chiefly noticeable in Anconas, Houdans, Indian Game, Leghorns, Orpingtons, Old English Game, and Old English Game Bantams, there is little doubt that the Crystal Palace Show, held on November 15, 16, and 17, was a great success, and the financial balance will once more be well on the right side. From a speech at the luncheon on the opening day, we understand that the decrease in the entry was accounted for by the fact that most of the novice classes provided at last year's event had been expunged from the schedule issued for the present occasion, since it was felt that they were apt to lead to much misunderstanding when wins were being reckoned. Be that as it may, the Palace has a rival this year in the Combined Specialist Clubs' Show, which takes place at Sheffield this month, and we know of more than one fancier who is holding in reserve for his club show a specimen or two that otherwise would have appeared at Sydenham. However, if these circumstances robbed the International of some of its entries, the late show has fully demonstrated once more that the Palace is the greatest show of its kind on earth! Including "A" numbers—there were seventeen this year as against eight in 1909—the total was 5,561, excluding appliances, and spread over 476 classes—twenty-four were cancelled—the class average was not far short of $11\frac{3}{4}$. Last year there were 5,889 entries in 462 classes—thirteen were cancelled—and thus the average was practically $12\frac{3}{4}$. However, it can be imagined that there was plenty to see in the poultry section of last month's show. And it says much for the excellent management of the affair that by 1.30 a.m. on the Friday the

whole of the pens were cleared and the birds were on their way home. It meant organising, but there is not a better organiser in the Fancy than Mr. Tom Threlford, the hon. secretary of the poultry section.

A Few Flaws.

Such things must be. During the run of the Palace Show a few flaws were detected. Here and there an adult fowl had been penned in a class for young birds, and *vice versa*. In three instances that came under our observation, the judges had overlooked these errors and had awarded prizes to the birds so penned—a cock in a cockerel class, two cockerels in a cock class, and two pullets in a hen class. In other cases, however, we found that three young birds in classes for adults were left cardless, certain proof that the errors in penning had been detected in the right quarter—by the judges. In two or three classes we saw wrong varieties penned, but in this instance the flaw was entirely on the part of the exhibitors in wrongly filling up their entry forms. We heard also of one fancier sending a £5 limit bird for the £2 limit class—where it won, by the way—but when put up to auction it realised only £4! Perhaps it was just as well that the exhibit appeared in the lower limit class, since it would not have won first prize in the other! There was a flaw of another kind, too, at the Palace—a case of someone so damaging a bird after it had been penned, and prior to its being judged, as to render it practically useless. This was a Frizzle Bantam, which, when penned by its owner, was in perfect curl, but which had been sprinkled with water by some unknown scamp, and was thus robbed of its chief beauty. The incident may lead to the Palace executive excluding the public until the whole of the judging is over. It is a pity the case cannot be brought home to the offender.

Avian Tuberculosis.

Any contribution to the facts regarding such an important subject cannot but be welcome to all who know that the disease is one of the most common causes of mortality in poultry and other domesticated and semi-domesticated birds. Special interest, therefore, attaches to the statements made in the "Journal" of the Department of Agriculture for Ireland, by Mr. A. E. Mettam, Principal of the Royal Veterinary College, Dublin. The really grave nature of the conclusions arrived at, and the pressing need for some direct authoritative control in such matters, may be gauged from the expressed belief (apparently supported by reliable evidence) that the organism—as found in fowls—infects swine. But what will probably more

particularly impress our readers is Mr. Mettam's statement that although the organ is not often diseased it is possible for the ovary to be infected. He supports this not only by reports that have reached him of eggs being laid which contained the tubercle bacilli, but also and more definitely by the results of investigations made in the college. It is claimed that experiments made in the laboratory have proved that chickens may be developed from eggs containing tubercle bacilli, and, moreover, that such chicks may contain the bacilli in their bodies when born. Making due allowance for the recorded fact that the ovary is not often diseased, the possibilities are of themselves sufficiently disquieting. The sooner the Board of Agriculture and Fisheries mature the promised arrangements for the investigation of poultry diseases, the better it will be for the industry. There may be no cause for alarm, but there is every reason for Departmental guidance in such matters. We will refer to the subject again in our next issue.

Free Poultry Exhibition.

In our issue of September, 1909, we wrote as follows:

A note in our Foreign Section calls special attention to the mission of poultry shows and their educational value, based on the advocacy of an American writer that, instead of making a charge for admission, shows should be free. That such an arrangement would popularise these gatherings cannot be questioned. Instead of the paucity of visitors which is too frequently in evidence, the avenues would be crowded, and a great amount of good would result, both to those who exhibit and those who would attend. It is entirely, however, a question of money. Many poultry shows have great difficulty in making ends meet, even with gate-money. In the case of the large exhibitions such an arrangement is frankly impossible, but that should not be so in the case of local shows where the expenses are small, and it is certainly worth a trial if subscriptions or grants could be secured to meet the unavoidable charges in connection with a display of this kind. For a show of 300 birds, with voluntary labour, the total cost of tent, pens, and printing should not exceed £25, apart from prize-money, in respect to which it might fairly be asked that entry-fees should be enough to cover the prizes offered and the judge's fee. Exhibitors would obtain a big advertisement by display of their birds to a wider constituency, and recoup themselves in that way. Cannot the Utility Poultry Club or the Northern Utility Poultry Society test the scheme? The ILLUSTRATED POULTRY RECORD offers £5 towards the expenses of the first show of not less than 200 entries on these lines.

We are extremely glad to say that the St. Helens, Prescott and District Poultry Associa-

tion has won the £5, a cheque for which has been sent. The show was held in the Volunteer Hall, St. Helens, on Thursday, November 10, and we understand that it proved a great success. There were altogether upwards of 300 entries in the poultry classes. Mr. John Borrill, the chairman of the committee, informs us that the free admission of the public proved very attractive, judging by the large crowd of interested visitors that were present. We congratulate the St. Helens Poultry Association on winning our prize of £5, and we hope that other shows will be encouraged to follow their excellent example.

Blackhead in Turkeys.

One of the most disastrous waves of disease which has attacked the stock of poultry-keepers is that known as Blackhead in Turkeys, which has practically annihilated the turkey industry in some of the New England States. Fortunately, on this side of the Atlantic we were for a long time free from it, but that appears to be no longer the case. Information has reached us that it has made its appearance in one or two districts of England, with equally bad results, and, as a consequence, many farmers have lost large numbers of young turkeys, so much so that they have given up this class of poultry. So far as we are aware, only one section of the country has been affected, and we hope that the area may not be extended, or the question will become very serious indeed, reproducing on this side the losses from which American breeders have suffered.

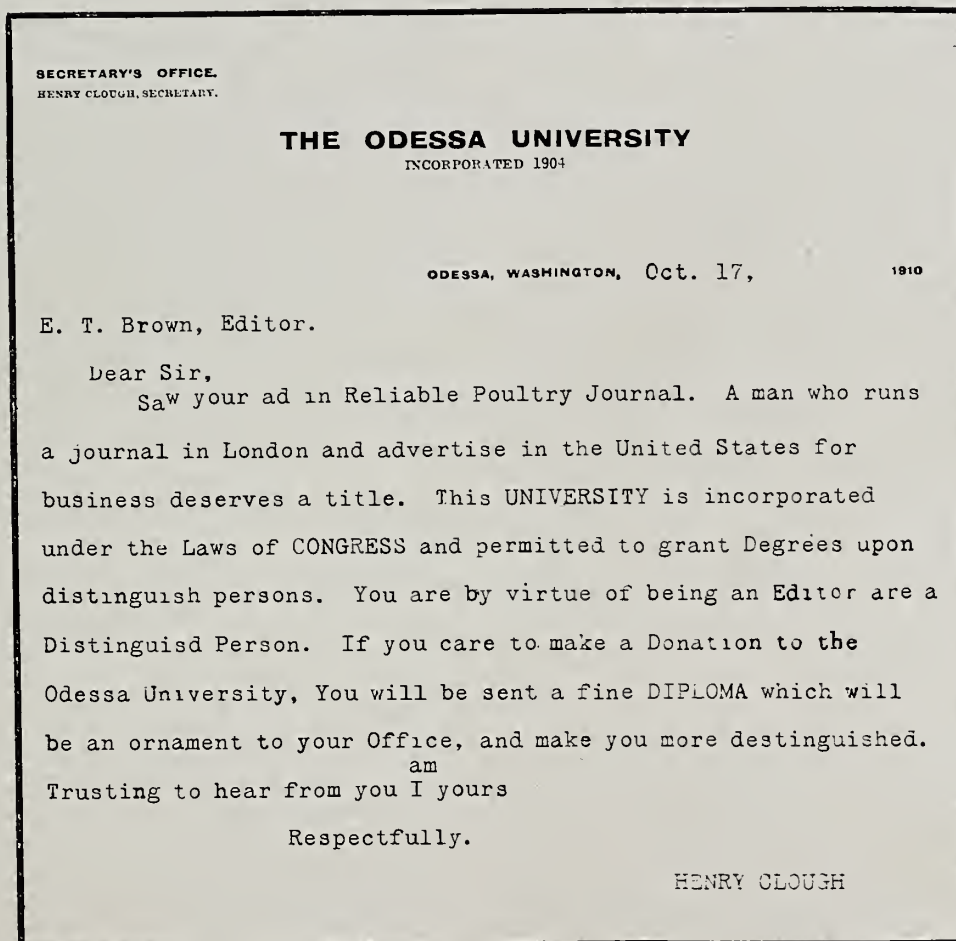
The Smithfield Club Show.

Whilst fully acknowledging the beneficent character of the work done by the Committee in the establishment and continuance of the table-poultry section of the Smithfield Club Show, it is perhaps permissible to suggest that some revision of the schedule has now become desirable in the general interest of the industry. That the classification is capable of some improvement can scarcely be gainsaid, and although it is full, the omissions and inclusions are in some respects unfortunate. The ideals of those members of the Committee who are directly responsible are, of course, worthy of all respect, but, for instance, it is a questionable policy to endeavour to popularise such a cross as Old English Game and Dorking, in face of a declining interest, such as is shown in decreasing entries—three in 1908 and one in

1909. There may be some resuscitation this year, but the bulk of the evidence is discouraging, not only at this event but also at the Dairy and other Shows of any importance. Some of the other classes are open to objection, but the inclusions are comparatively immaterial in face of the omission of such a breed as the Sussex, which is rather ignominiously left to compete with "Any Breed"—other than Dorking, Old English Game, Indian Game, Langshan, Black and Buff Orpington, Plymouth

Rock, and Wyandotte! According to last year's experience this method of classification practically gave the "Any Breed" class to the Sussex, but why should the Smithfield Club be more timid than the British Dairy Farmers' Association? The origin

We have received the following letter from the
Odessa University :



The honour has been declined.

and economic history of this breed is a matter of common knowledge, and its claims to recognition in table-poultry classes are certainly no whit inferior to those of the other "pure breeds" accorded separate classification.

Rats and Poultry.

After a period of quiescence the Rat Problem has been forced upon public attention in a somewhat startling manner. Hitherto in this country it has been a question of loss arising from the depredations of these rodents, estimated at from £10,000,000 to £15,000,000 per annum. In Asia the rat as a disseminator of the Plague Virus has been recognised, but we were free from that danger until a few weeks ago, when the discovery that rats and other animals were dying from Plague in Suffolk startled local authorities and farmers from their lethargy. As a result we hope that concerted and determined action may be taken, for it is only in that way that the difficulty, serious in monetary loss by destruction of materials and consumption of food and as a question of public health, can be overcome. It is useless individuals acting sporadically. It is wholesale action or nothing. Happily, the evidences are that the Plague among these creatures is very local and limited to a few, but the possibilities of extension are great, and, as is usual at such times, there is some fear of unreasonable panic. Many innocent people, too, may suffer by the boycotting of supplies of produce from the districts supposed to be infected. The railway companies are refusing to carry hares, rabbits, and pheasants therefrom, and probably fowls may be included. Once start this prohibition, and eggs may also be tabooed. However unjustifiable this would be, we cannot control public feeling, for under such conditions extreme measures are regarded as safest. Therefore, it is all the more important that action be taken, not alone in Suffolk, but all over the country.

County Councils and the Poultry Industry,

That we are on the eve of great developments in rural education is certain, but how far these will be beneficial to our branch of live-stock will depend largely upon poultry-keepers themselves. We have from time to time pressed this question home, and to some purpose. By showing how county education authorities have neglected poultry, these bodies have realised that poultry-keepers intend to obtain their fair share of money expended. A satisfactory sign is that the County Councils' Association has recently considered a scheme by which every county shall have a resident

agricultural instructor and adviser, whose duty will include the organisation of instruction, the supervision of experiments, the visitation of farms, the holding of classes for small-holders and the promotion of co-operation, in which poultry will occupy an important place. That, however, is insufficient unless the counties are prepared to appoint special instructors for the different subjects, as is the case in some counties at the present time. A valuable feature of the scheme submitted, and from which, if equitably carried out, we may hope for much good, is the provision of a demonstration farm of 100 acres to 300 acres in size, which might be the site of the farm institute or school. At this, if poultry occupied its proper place and received adequate attention, very valuable work could be done. The question is, how far can County Councils be trusted to accord fair treatment to the minor branches, so-called? Our experience in the past has not been at all satisfactory, with two or three exceptions. There are signs, however, that a change is taking place in this direction, and we hope that these portend a more satisfactory condition of affairs than in past days. Much will depend upon the Chief Instructors appointed. If, as is often the case, these men take no real interest in poultry, we shall see little improvement. Therefore, the respective county schemes will require vigilant watching.

Small-holders' Cottages.

Several articles, of great interest to poultry-keepers and small-holders generally, have been lately contributed to the daily Press on the ever-interesting subject of cheap rural cottages. When it is remembered how often a suitable plot of land for the keeping of poultry and other small stock, conveniently situated as regards a market, &c., and desirable in every respect, may be found, only lacking housing accommodation to turn it into an ideal small-holding, it is of the utmost importance to landlord and would-be tenant alike to realise the possibilities of erecting cheap cottages. It is indeed probable that much more would be done in this direction already, were it not for the existence of absurd and antiquated building bye-laws, which take no account of modern materials and methods of construction, and absolutely veto many excellent and up-to-date methods of cheap building made possible in more progressive districts. Until these bye-laws are thoroughly revised (and, what would be the ideal, standardised all over the country, while making proper allowances for special local conditions), many enterprising landlords will find their hands tied, to their own loss and the disappointment of the would-be small occupiers.



IN conversation recently with a German who is at once a poultry-keeper and a Government official—we were discussing the rapid growth of imports of eggs and poultry into the Fatherland—he mentioned that at one period the majority of ordinary Germans, when they used eggs, were quite content with the cheaper grades, but that now, as a result of greater means and a higher standard of living, better quality is demanded, for which they are willing to pay enhanced prices. The same is true, more or less, all over the world. Thus we realise that there are determining factors of values. It is my present object to inquire what these are.

WHO SHALL FIX THE STANDARD?

In such cases as this we desire to get to the root-bed, for merely surface work is useless. The point for inquiry is therefore—assuming that a standard exists, upon which there can be no question—who fixes that standard? Who may it be that decides, consciously or unconsciously, upon the value of any product, or, to put it in another way, who rules the roost? The only answer that can be given to such a question is that the consumer is the arbiter of the poultry-keeper's returns. He dominates the position by reason of the fact that when he asks in exchange for money certain qualities, unless these are forthcoming he can by declining to purchase compel his own views. Or, further, by paying a less price for supplies which fail in attainment of the standard he has formulated, the position he occupies is unassailable. We may temporarily by plausibility or deception or withholding supplies suspend this inexorable law, but ultimately the trump card is played by consumers,

more especially with perishable products that are not actual necessities. Great though the influence of the retailer may be, he and the producer are alike dependent upon pleasing and satisfying the final purchaser. The sooner that truth is recognised by all concerned the better will it be. Useless indeed is it to struggle against such influence. One of the supreme difficulties which we have had and still have to face in connection with the National Poultry Organisation Society is to impress upon producers and depots that it is not what they think, not what they regard as satisfactory, which fixes the standard of quality and of price, but what the consumer desires and is willing to pay for. I could, did space permit, tell some remarkable stories of how people in rural centres are attempting to make their ideas of quality rule the great consuming markets, and are blindly and foolishly fighting against their own interests.

EGGS A PERISHABLE COMMODITY.

"Facts are chieftains that winna ding." Here are a few that may be commended to producers generally, who are seeking to meet the demands of more or less distant markets. Those who have their outlet at hand, who are near to the consumers, find less pressure in these directions, though such must keep some of the following points ever in view. For them the time of transit is shortened, and their eggs are not subjected to the influences which affect supplies carried over greater distances. Let me commend to the attention of all concerned these considerations:

Eggs form a perishable product;

Eggs rapidly deteriorate, varying somewhat in

accordance with the conditions under which they are kept, but nothing can prevent deterioration;

The egg contents change in accordance with the time they are kept;

Eggs decrease in value every day after they are laid;

Not every new-laid egg in point of time is a first-quality egg;

Appearance, as in everything else, has considerable money value in eggs.

It is only the best eggs that realise the best prices. The more we can burn these facts into producers' minds, the sooner will they adapt their methods accordingly. Until they do so they cannot hope to realise the highest returns.

WHAT IS THE STANDARD?

Determination of this question is by no means simple or easy, as is generally supposed. To many people an egg is an egg—and nothing more. But there are eggs *and* eggs, good, bad, and indifferent, some that are far below, others almost reaching, but just missing, the standard. Nor is it a matter of outward appearance alone or of inward condition. Both are concerned. An absolutely new-laid egg, perfect in every sense internally, but with a misshapen or dirty shell, is lacking in one essential point which vitiates the whole and brings it at once to a lower grade. Some people will not have it at any price. They refuse to accept the inferior. "The eye is the inlet to the pocket."

What we have to do, therefore, is to inquire what are the qualities that go to make up the first-grade egg, the product commanding top price on the markets, the present demand for which is a thousand-fold greater than the supply. It is desirable to emphasise that the great majority of eggs satisfy these requirements if sold within a day or two of being laid, but producers are so fond of them that they keep them until their primary value has disappeared, or fail to realise that, to vary the children's saying, "Keeping is not finding but losing." It should be noted here that the observations now made refer to first-quality boiling eggs, for which the highest prices are paid. In respect to these there is practically no competition. Save for a few received from Ireland and the Pas de Calais, there are no imported supplies which can ever equal nearby eggs, marketed rapidly and in the best manner. But, unfortunately, this enormous advantage is largely lost by home producers through their own negligence.

THE VISIBLE.

First must be taken Size.—We may state, what is perfectly true, that many eggs weighing $1\frac{3}{4}$ oz. are of equal nutritive value to others which

weigh $2\frac{1}{4}$ oz. as the larger size is almost entirely water. It is a fact that during the greater part of the year, whilst an egg scaling at 1 7-8 oz. is only 6.25 per cent. less in weight than one turning 2 oz., and probably contains as much actual food, its retail value is 12 to 15 per cent. less, and generally is sold for cooking. Consumers demand and retailers must supply eggs which each weigh 2 oz.—*i.e.*, 15 lb. for 120 or over, and in some markets 17 lb. eggs are preferred. It is useless combatting this position. Better supply what the market requires.

Second, Shape.—In this respect there are considerable differences. Some eggs are long and narrow, others almost as broad as they are long, whilst still more are between the two. The last-named are preferred, though this is not of great moment so long as the shell is even and not abnormal. Anything in the direction of malformation militates against the value. We may not be able to control, but we can select.

Third, Evenness and Strength of Shell.—Roughness of the outer envelope is undesirable. In the autumn and winter a rough shell generally denotes preservation by lime-water. Therefore the smoother the better. A strong, thick shell may mean that the proportion of edible matter to the total weight is less than is the case when the calcareous covering is thin, but such is more than compensated by the fact that there is less evaporation if the shell is close and thick, and the carrying quality is greater.

Fourth, Bloom.—A new-laid egg has a bright, shiny coating to the shell which is called "bloom," and hence it is that experienced buyers can tell the age more or less by its appearance. For that reason washing is undesirable. A dirty-shelled egg is useless for the best trade. We do not pay top prices for soiled or stained goods. Spotted apples may be quite as good as those even in colour, but their marketable value is much less.

Fifth, Colour of Shell.—Whilst it may be true that there is no appreciably greater value in a tinted than in a white-shelled egg, there is an undoubted demand value. Consumers, and therefore retailers, like a fair proportion of brown eggs, as they are called, and prefer to deal with those who can supply them. It is thought in the scarcer months that these are less likely to be preserved.

WHAT IS UNSEEN.

Here we have to consider what is within, which is of the greater importance, because in this way is determined the real value, the actual food. Unless that is in the best condi-

tion all else goes for nothing. The buyer may be misled by the outward appearance, but the ultimate judgment depends upon the egg contents. That the quality can be gauged through the shell is unquestionable. For that reason testing by light is universal.

Sixth, what may be termed "new-laidness," by which is meant that the contents shall be as nearly as possible what they were at the time when they were voided by the hen, when everything is perfectly fresh.

—If we boil an egg when, say, one or two days old, it is found that the white does not inspissate to the extent that it will later, but remains milky, clothly, and flaky. Do what we will, the elements which make for that state disappear in three to five days, when the egg betokens its age. Something has gone which makes for flavour and quality. Such eggs do not command the top prices. The market will not have stale milk, and is unwilling to pay the best rates for eggs which have lost their pristine virtue. It is of no use arguing. "He who pays the piper calls the tune."

Seventh, Fullness.—One

sign of "new-laidness" is that the egg shall be full, by which is meant that the air space is scarcely visible. I have recently been making observations, not yet completed, as to the evaporation of eggs, and find that, under normal conditions, out of 120 eggs 1 egg contents disappeared in the first 6 days.

2 egg contents disappeared in 13 days, 3 in 21 days, 4 in 29 days, 5 in 36 days, 6 in 47 days, and 7 in 60 days, so that as a matter of weight this is important. The test referred to was made in cool weather. In the hot months, or if kept in a warm place, the loss would be much greater. Examination by light reveals the size of air space, and if that is large the value is depreciated.

Eighth, Brightness.—By this is meant clearness of contents through the shell, not dull opaqueness. There must be no spots which represent moulds, or dark areas, generally betokening development of the germ, or bacterial colonies in the white.

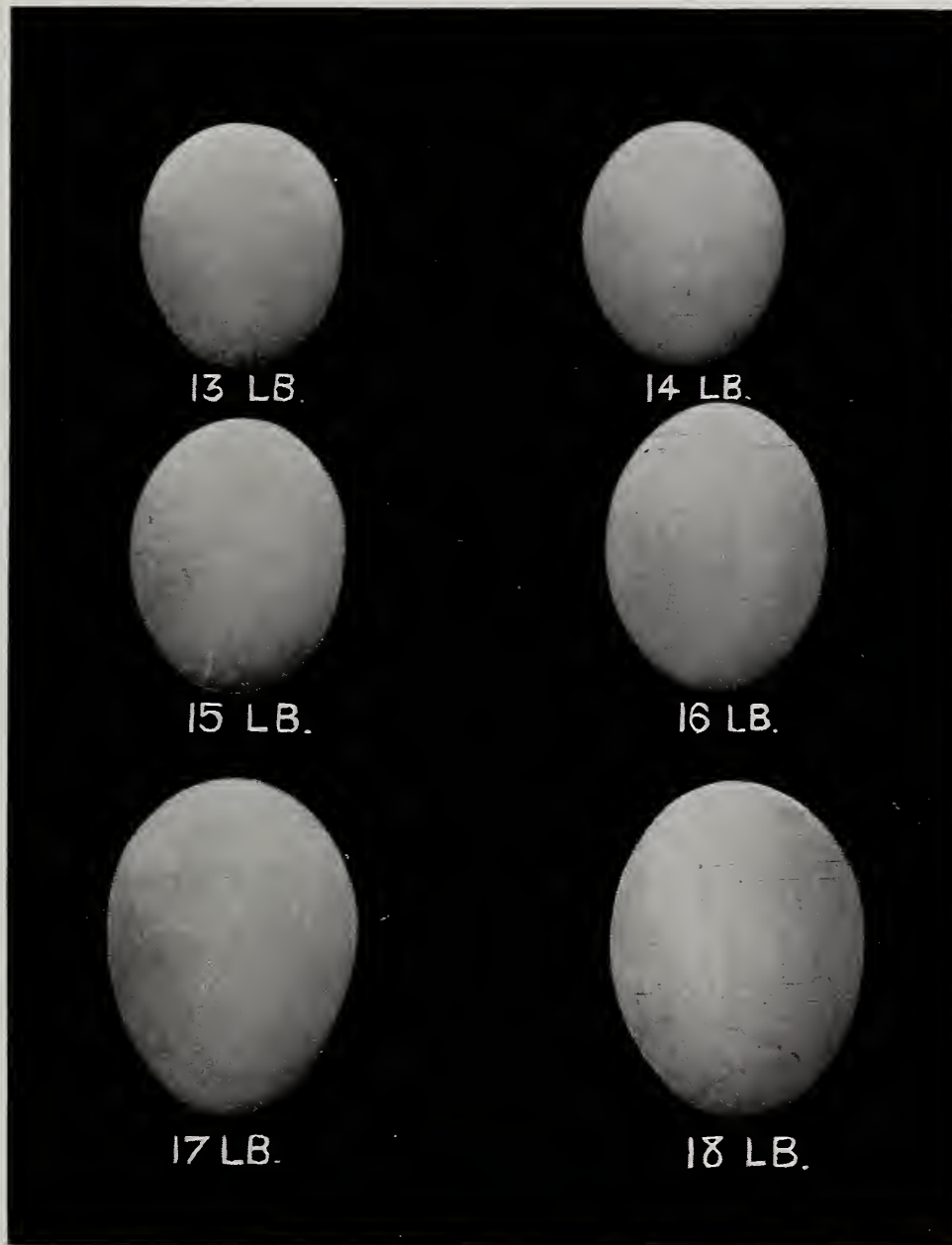
Ninth, the White and the Yolk ligaments (chalaze) must be strong and firm, and also the yolk round. A flat yolk means age. These are not revealed until the shell is broken.

Tenth, Colour of Yolk.—The best eggs have a reddish-yellow yolk, not pure yellow. Again that is unascertainable until the shell is broken.

Eleventh.—Infertile Eggs keep better than those which have been impreg-

nated. I am convinced that if infertile eggs could be guaranteed for market purposes they would soon win favour. Large producers may easily secure this result, and small ones also if they set themselves to do so.

In this connection it should be mentioned that the value of an egg is fixed not on the farm



RELATIVE SIZES OF EGGS.

(13lb. to 18lb.—It was intended to give actual sizes, but that would have been too large for a page. No. 3, 15lb. per 120, or 2oz., should be in length $2\frac{1}{2}$ in., and the others in proportion.)

where it is laid, not in the local Co-operative Society's or higgler's packing-room, but by its condition when delivered to the consumer. An egg which might be first quality in Norfolk, or Somerset, or Wales to-day may be only second quality in London or Manchester to-morrow.

WHAT THIS ALL MEANS.

Producers should therefore ask themselves what are the eggs that conform to market standards, and by meeting these latter obtain the best prices. Values are determined by the extent to which the supplies meet or fall below the demand. Such as fail to reach the standard must be marketed accordingly, and whatever prices are obtainable accepted for them. If a round price is accepted it will generally be that of

the lowest grade, which means loss of returns. A further consideration is that a much larger proportion of home supplies than at present would be of the higher quality if poultry-keepers would take a little more trouble, and if the methods of sale were improved accordingly. It is to their interest to do this. Frequently in the local markets not more than 30 per cent. of the eggs offered weekly are capable of being sold as new-laid.

I have been led to these observations by the fact that so many producers have failed to realise what is demanded by the best trade, and that there is an amount of antagonism on the part even of Committees and Managers of Co-operative Societies to the recognition and adoption of a high standard of quality, without which all efforts put forth to obtain the fullest rewards for native eggs will be in vain.

SIGNIFICANT OMISSIONS.

POULTRY FACTS REVEALED AND SUPPRESSED.

By "STATISTICIAN."

IN previous issues of the POULTRY RECORD (1) I have endeavoured to show how the great majority of County Councils have neglected to give encouragement to the Poultry Industry by educational facilities; how the money received from the Residue Grant, primarily allocated for Technical Instruction, has been expended in other ways; how the expenditure on Poultry Teaching has been reduced more than any other branch; how that in 1907-8 twenty-four County Councils in England and Wales gave no poultry teaching whatever, and that only four of the remainder devoted 10 per cent. and upwards of the agricultural expenditure to poultry; and how that, relatively to possible production and the consumption of eggs and poultry, the efforts put forth by those who are responsible for development of national food supplies are totally and, in some cases, scandalously inadequate. That what has been previously submitted has fluttered the Council dovecotes we have had evidence on all sides. They have not relished revelations as to their neglect of the rapidly-advancing and one of the most important of secondary agricultural industries, the possibilities of which are enormous. So long as the facts were ignored, they did not trouble themselves. Many of the members of these bodies do not like poultry or poultry-

keepers; they have got the notion that extension means interference with their sports. But the day is passing for such domination.

Perhaps the most suggestive sign of how these revelations have perturbed local authorities is that in the "Report on the Distribution of Grants for Agricultural Education and Research in the years 1908-9 and 1909-10, &c.," just issued by the Board of Agriculture and Fisheries, for the first time since this series of annual surveys has been published the tables given, showing the amounts received by each County Council under the Residue Grant, the sums allocated to Agricultural Education, both totally and for the individual subjects, have been omitted. These "tell-tale" figures evidently revealed too much. So long as no one paid any attention to them it did not matter, but when they were analysed and the facts recorded therein exposed, then, for some reason or another that I do not know, they were withdrawn. We are justified in assuming that if these had shown County Councils in a more favourable light than in former years, they would have appeared as usual, and it looks as if the treatment meted out to poultry was worse than ever. Such is the natural deduction. Under the new arrangements between the Board of Agriculture and the Board of Education, County Council teaching is now supervised by the latter department; but as the report just issued contains the records of county work for the last complete year under the former

(1) See "The Cinderella of Agriculture," Vol. II., page 6 (October, 1909), and "The 'Whisky Money' and Poultry Instruction," Vol. II., page 575 (August, 1910).

department, the tables of expenditure should have been included to complete the series. We have made application to the Board of Education for the omitted financial returns, but without result, which is also suggestive.

Whilst, therefore, I am unable to compare expenditure for 1908-9 with that of previous years, owing to the omitted tables, the county reports enable me to show what has and

others which were in the Black List before have just managed to escape from it—namely, Anglesey, Leicestershire, Radnor, and Shropshire.

The counties named in the list below (omitting West Sussex) comprise great tracts of country embracing **10,027,768 acres of cultivated land of all sorts and conditions, or nearly thirty-seven per cent. of England and**

THE BLACK LIST.

(Counties in which no local Poultry Instruction was provided, 1908-9.)

County.	Classes 1907-8.				Acreage of Cultivated Land.		
Bedford	(5)	...	...	...	256,430		
Berks	None	...	...	...	354,322		
Brecon	None	...	...	...	201,944		
Carmarthen	(24)	...	...	...	440,785		
Cheshire	None	...	...	...	533,922		
Cornwall (1)	None	...	...	...	608,625		
Denbigh	(2)	...	...	...	265,218		
Derby	None	...	...	...	489,140		
Devon	(25)	...	...	...	1,211,151		
Dorset	None	...	...	...	478,701		
Glamorgan	None	...	...	...	266,913		
Hants	None	...	...	...	695,926		
Isle of Ely	None	...	...	...	Included in Cambs		
Isle of Wight... ..	None	...	...	...	Included in Hants		
Lincoln, Holland	None	...	...	...	1,521,593		
„ Kesteven	None	...	...	...
„ Lindsey	None	...	...	...
Merioneth	None	...	...	...	151,291		
Middlesex	None	...	...	...	91,359		
Montgomery	(10)	...	...	...	272,798		
Northumberland	None	...	...	...	706,036		
Oxford	None	...	...	...	411,504		
Pembroke	None	...	...	...	308,325		
Rutland	None	...	...	...	87,003		
West Sussex	None	...	...	...	Not divided		
Yorks, East Riding	(10)	...	...	...	674,782		

what has not been done during that twelve months, and we find the condition revealed is worse than ever. Instead of twenty-four counties giving no Poultry Instruction as in 1907-8, in 1908-9 there were twenty-six, though in a few cases a little instruction was being given through Associated Colleges and Schools. But the fact is evident that in the year under review, out of sixty counties in England and Wales, in the majority of which opportunity is vast and need imperative, 43.33 per cent. did not provide any local teaching in poultry-keeping. I, therefore, bring the Black List up to date.

It will be seen that six of the counties which had given local instruction in the previous period had none in 1908-9, and in that respect are decadent. As shown above, four

Wales, in which no instruction was placed within reach of the entire population, save the infinitesimal proportion of those who are able to go to Agricultural Colleges and Schools. The population of these counties within the administrative areas—that is, omitting the urban districts—is upwards of 7,000,000, who have thus been deprived of a legitimate share in this form of education.

With a few exceptions the other counties, though not absolutely blank, have nothing to congratulate themselves upon, as it is apparent that the majority do as little as possible. If reference be made to the previous article on “The ‘Whisky Money’ and Poultry Instruc-

(1) No instruction was given, but experiments on a limited scale were carried out as in previous years, some of which was not of much practical value.

tion" (2) it will be apparent, in relation to the annual expenditure on eggs and poultry and to possible production, that no county in 1908-9 dealt with this subject at all adequately, and the great bulk were far in the rear. In the following table I give the figures as to these, extracted from the before-named report, showing the total number of Poultry Classes, where possible the acreage of cultivated land, and how many acres for which each of the classes provided.

POULTRY INSTRUCTION IN OTHER COUNTIES, 1908-9.

County.	No. of Classes.	Acreage of Cultivated Land.	Acreage per Each Class.
Anglesey ...	4	150,427	37,606 acres
Buckingham ...	57	396,389	6,954 ..
Cambridge ...	21	491,260	23,393 ..
Cardigan ...	24	263,908	10,996 ..
Carnarvon ...	4	172,368	43,092 ..
Cumberland ...	20	572,643	28,632 ..
Durham ...	20 (1)	431,572	21,578 ..
Essex ...	21	793,893	37,804 ..
Flint ...	1	126,359	126,359 ..
Gloucester ...	84	657,307	7,825 ..
Hereford ...	16 (2)	449,104	28,069 ..
Herts ...	22	326,962	14,862 ..
Hunts ...	7	209,026	29,861 ..
Kent ...	100	737,092	7,370 ..
Lancashire ...	40 (3)	798,455	19,961 ..
Leicester ...	16	474,377	29,648 ..
Monmouth ...	30	240,360	8,012 ..
Norfolk ...	108	1,068,214	9,891 ..
Northampton ...	39	560,253	14,365 ..
Nottingham ...	8	442,546	55,318 ..
Radnor ...	20	162,142	8,107 ..
Salop ...	52	716,742	13,783 ..
Somerset ...	65	853,808	13,135 ..
Stafford ...	20	593,835	29,691 ..
East Suffolk ...	2	758,509	75,850 ..
West Suffolk ...	8		
Surrey ...	3	261,869	87,289 ..
East Sussex ...	63	516,640 (4)	5,740 ..
Warwick ...	48	494,176	10,295 ..
Westmorland ...	8	245,720	30,715 ..
Wiltshire ...	119 (5)	727,124	6,110 ..
Worcester ...	39	398,745	10,222 ..
Yorks, North Riding	35	867,554	24,787 ..
„ West Riding	77	1,184,405	15,382 ..

(1) This is an estimate, as Poultry Classes were combined with Dairy Courses.

(2) In addition a four weeks' course in dairying and poultry was given.

(3) Courses are provided at the Lancashire County Council Farm.

(4) Estimates based on percentage of cultivated to total land in entire county.

(5) 490 poultry yards were also visited by the instructor.

The variations are remarkable. From East Sussex, with one class for each 5,740 acres of cultivated land in the county, to Flint, with one for 126,359, there are many gradations. But the best are far below the standard they should attain. When we consider that the cultivated land in England and Wales could keep fowls to produce an annual return of 25s. to 30s. per acre without displacement of any crop or other stock, it will be apparent how small are the efforts made to stimulate production. Probably some of the counties produce

more than others in this respect, such as, for instance, Bucks and East Sussex, and may not, perhaps, require instruction so imperatively or so generally, but these come out best in what they have done. Even if we consider Wiltshire, which has certainly distinguished itself as compared with other counties in efforts to promote the Poultry Industry, and stands at the head so far as number of classes is concerned, its instruction might be quadrupled without overtaking the opportunities presenting themselves. If that be so, how far do the others come short? The sin of omission must be laid to the charge of English and Welsh County Councils, not merely those upon the Black List, but nearly all the others; and some are sinners indeed.

There is a most important point in connection with the foregoing figures—namely, that the number of classes given does not represent complete courses. Had I been able to discriminate, the record would have been much less favourable to the counties. For instance, in Wiltshire the actual number of courses was twenty, and it may be assumed that the same people attended during the six weeks. When it is realised that instruction was only provided at twenty centres in that great county of 727,124 acres, it is evident that at this rate it will take almost a generation to get round it. If that be the case in a county which, comparatively, is so well in advance of nearly all others, what about the latter, whether they are on the Black List or not?

It was my intention to have made an analysis of the expenditure of the respective counties *pro rata* to the number of holdings in each, but the unexpected and unexplained withholding of information given in previous years makes it impossible for this to be done.

Mr. T. H. Middleton, Assistant-Secretary of the Board of Agriculture, in his Annual Report, calls special attention to the need for experimental work, which is required in regard to Poultry as much if not more than any other branch. The vast proportion of poultry-keepers cannot afford to make experiments. Hence the greater need for these to be made by public bodies. So far as I can see, only one county—Cornwall—did anything in that direction. £50 would cover the entire expenditure over the whole of England and Wales on Poultry Experiments.

As to the future, in view of the proposals made by the County Councils Association, the facts here made known should be forced upon the attention of local authorities, so that they may not only realise their duty, but be impelled to perform it fairly all round. An opportunity is now presented by means of the Development Fund. But, unless we are determined,

there is grave danger that any and every subject will be placed before Poultry, as in the past, and that we shall be thrown the crumbs, when any are available, which is not always the case. The effect of transference to the Board of Education remains to be seen.

As to Agricultural Colleges, much might be said, but I must content myself with stating

that out of the nineteen institutions of which reports are presented, at ten there is no Instructor in Poultry-keeping, and at the nine others only four have special men for this work, the remaining five combining it with another subject. That is a condition of affairs which ought to be speedily remedied. I may return to that question on another occasion.

POULTRY THROUGH THE MICROSCOPE.

V.—THE PICTURESQUE SIDE OF EGG PRESERVATION.

WRITTEN AND ILLUSTRATED BY JAMES SCOTT.

ALTHOUGH the accompanying illustrations do not bear *directly* on poultry, they have so intimate a connection therewith that they deserve studying. The preservation of eggs is a practice that is not followed by the smaller breeders so extensively as it should be. We all know that during autumn and winter the prices of eggs rise to as much as double and treble those which they fetch in the earlier warm months (such as April) owing to the lack of production. The larger egg-sellers have met this difficulty by allocating a number of the eggs for preservation; and thus they gain an advantage by their sale throughout the colder months. But why should not the majority of poulterers follow the custom? I fancy there is an idea afoot that the contents of the shells are altered and interfered with by such processes, the misconception no doubt arising on account of the use of the word "pickle" to describe the treatment. To "pickle" a thing seems to imply that it comes into direct contact with a fluid that permeates the whole of it; but this is far from being the intention of the operator where eggs are concerned. The idea in the latter case is simply to exclude air. The shells are full of exceptionally tiny stellate pores, through which oxygen finds its way. An egg beneath a sitting hen is thereby provided with the breath of life, steadily warmed, for the benefit of the developing chicken. Man hinders Nature's methods by claiming the eggs for his food; so that when they are simply stored, the oxygen that enters the shell only enables microbes to multiply and turn the eggs bad. The microbes may either get in through the pores, or already exist in the contents, having been transferred from the hen's blood.

In any case the absence of uninterrupted special warmth allows the microbes to breed unchecked; whereas the germ of the chicken would have grown, by consuming the surrounding nutriment, and in this way not have allowed it to be seized on by the microbes.

The whole object of preservation is, therefore, not to "pickle" an egg in the same sense that an onion is pickled when it is placed in vinegar, but to keep out the oxygen. We do not want to sodden the yolk and albumen. Instead, we merely desire to prevent any kind of germs from multiplying; so that the exclusion of air is considered to be enough precaution to suit the purpose. If the preservative fluid is allowed to trickle through—and it does so occasionally when not properly prepared—it actually spoils the eggs, and does not keep them good. It should be understood that an egg may be bad even when new laid, if it issues from a diseased fowl, or one with incipient maladies. The chances are, however, not greatly in favour of such disasters, under modern conditions.

We start, then, with a clear purpose in view, and can the better examine the methods that have been tested. I believe that there are only four treatments that are worth troubling about. The first consists of four parts by measure of fine slaked lime, twenty parts of cold water, and one part of salt. The first two items should be mixed a week before they are needed, and the salt added thereto on the fourth or fifth day. A hundred years ago this compound, to which cream of tartar was an addition, was a favourite. There are objections to it, however, to be soon mentioned.

The eggs are placed carefully in tubs,

barrels, or crockery, and the *clear* solution gradually poured over them. The sediment must be entirely excluded, because if any or much of it is allowed to enter the receptacle, the liquid may become partly or wholly converted into a solid mass. Another important point to bear in mind is that the liquor must



Fig 1.—A film of water-glass on an egg splits up into peculiar figured plates—so that it forms an incomplete preservative in this kind of treatment. Above is a magnified pinhole view of a film of water-glass cracking. [Copyright.]

have a free, unoccupied space of two or three inches on top, and that additions must be made to allow for evaporation. The preservative is safe to use so long as only the *clear* solution is poured over the eggs. Large poulterers put as many as 60,000 or 80,000 eggs together in a cement tank under these conditions. A defect of this plan is that the shells exhibit a rough texture, and are turned so brittle that when suddenly placed in boiling water they crack. By pricking the broad end of each, however, an egg may be cooked in security. Damage can be averted by putting an egg into cold water and bringing it slowly to the boil.

A recently tried scientific method is to disinfect the eggs, and then deposit them in hot (of course melted) paraffin wax in a vacuum. The contained air is thus extracted; and after the atmospheric air is allowed to enter the vessel the wax is forced into the pores and effectually seals them. The process is one that is practicable only for the great firms. Cold storage is also beyond the scope of most men, and need not be further referred to.

We come now to what I think is the most reliable ordinary plan, capable of profitable adoption on either a small or large scale. That is the water-glass system, about which I propose to give many details. Water-glass is a

silicate of soda—that is, a mixture of silica, or sand, with soda. Silicon is the most abundant solid element, but it is always found associated with something else. Its most familiar condition is as an oxide of silicon, otherwise silica (also called *silex*), typified by sand, flint, and quartz. This means that oxygen gas is allied with silicon in these instances. All these substances are, as is well known, quite insoluble, even in acids—except hydrofluoric—so that it is rather surprising that such an everyday chemical as washing soda can dissolve it on occasion.

We place a hard flint in a hot fire for some time. Upon withdrawing it, we plunge it into cold water; after which it may be easily crushed to a fine powder. Now, if you fuse one part of this powder (or crushed sand will do equally well) with four parts of washing soda (which is an impure carbonate) in a crucible over a fire, and then boil the mass in water, a liquid is produced which, after being filtered, comprises the water-glass—the silicate of soda—referred to. That is all it is—sand and soda. Caustic potash is sometimes used instead of soda; but not for commercial purposes.

For the information of those who need it, it may be stated that the water-glass (also called soluble glass) is a thick, viscid, transparent

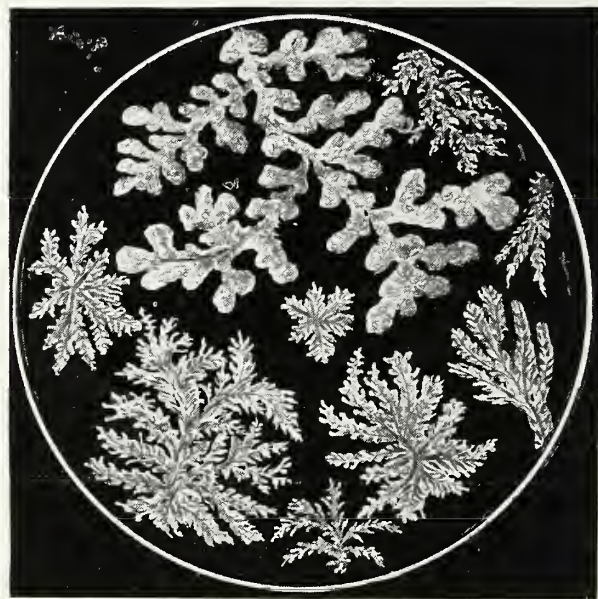


Fig. 2.—The ordinary solution of water-glass—ten parts water to one of glass—assumes a dense white aspect while it evaporates, as it does on the sides (and so on) of vessels containing it. This is a view of some through a magnified pinhole. [Copyright.]

substance, like strong sugar syrup in appearance. A sixpenny tin procured from a chemist is sufficient, when diluted to ten times its strength, to make a couple of gallons of preservative, in which the eggs should be immersed. Wooden or crockery vessels of

proper sizes, covered with lids, are needed to contain the liquid. If hot water is used to dissolve it, the liquor must be allowed to cool before the eggs are deposited in it. Otherwise they may turn bad, as they will do even during "preservation" if kept in a warm place. Cool cellars, or sheds, are the best shelters



Fig. 3.—If the concentrated water-glass, as procured from the chemist, is heated on glass until it stops bubbling, and cold water is then dropped over it, transparent toothed flakes develop within it, as in this magnified pinhole. [Copyright.]

for such things. A temperature between 33 deg. F. and 45 deg. F. has been recommended by the Board of Agriculture. Higher degrees will quickly injure them. Eggs well-kept for years by this plan turn rather pinkish.

Some people prefer to remove the eggs from the solution and stack them on shelves, believing that a thin layer of glass dries over and entirely covers them. Fig. 1 will show that the film cracks and leaves gaps through which the air could find its way to the pores. Under the microscope the split pieces of film can be seen to curl up, thus exposing more space to the air, beneath them. A film dried on glass produces a beautiful sight, of which Fig. 1 is a representation. All these facts prove that such removal of the egg provides incomplete preservation. If the liquor is too thin, it may be expected to trickle through the shell pores and leave traces which will impart a taste of soda to the boiled eggs. On the other hand, too heavy a solution seems to force its way through, with similar results. The strength recommended by the large makers, Messrs. Joseph Crosfield and Sons, Ltd., Warrington, is about the best.

Eggs should be put into the solution soon after being laid. Whatever delay occurs before dealing with them exerts a certain amount of pernicious influence on the contents. More-

over, there are germs that can live without air, and some of these might get into the eggs. When preserved eggs prove unpleasant, the result is due either to the fact that too long a time elapsed before they were immersed or else because the solution was carelessly prepared. Rightly treated, they retain their good qualities for two, three, or even four years.

Crusts round the sides of vessels containing evaporating water-glass, and old drying films over withdrawn eggs, will consist of really pretty figurings, heaped together, an idea of which is given in Fig. 2.

I doubt if these and the other details have ever before been depicted. Just as an interesting fact, it may be added that if some diluted water-glass be laid on a slide and heated over a lamp until it ceases to bubble and becomes pearly, the frosty, foam-like residue will, when afterwards covered with water, break up into curious thin flakes, with toothed edges, as in Fig. 3. We cannot learn too much of the substances we use.

Whether or not salt should be added to the water when dissolving soluble glass is a point that cannot be discussed now. Salt is appropriate because it is soda chloride—*i.e.*, sodium and chlorine united—and may have beneficial effects. If a drop of strong water-glass is surrounded by salt water on a slide,



Fig 4.—Water-glass, acted on by salt water, yields a frostiness of which this is a view through a magnified pinhole. The whiteness spreads until it becomes opaque, amalgamated, and snow-like. [Copyright.]

it soon gets full of frosty filigree of the kind shown in Fig. 4.

Eggs should be examined, while held in an oval hole made through an eight-inch square of cardboard, in front of a strong light, before being placed in preservatives. Dark or spotted specimens should be rejected.

WHO'S WHO IN THE POULTRY WORLD.

MR. L. C. C. R. NORRIS-ELYE, M.A., J.P.

TO have remained faithful to one breed, refusing to succumb to the syren voice of other and more popular races for more than thirty-five years, is a record creditable to Mr. Norris-Elye, who since 1877 has made Brahmas his study, and they have remained his favourites through good and evil report. Thirty years ago the Brahma stood first in popularity. Classes of fifty birds were by no means uncommon, and competition was keen in the extreme. The position of the breed is very different now, but a few breeders have never deserted their first love. Of these Mr. Norris-Elye



MR. NORRIS-ELYE.

is one. Since 1877, when he first exhibited at the Crystal Palace, winning third and fourth under Mr. Richard Teebay, although never a frequent or general exhibitor, his success has been very great and well sustained. For instance, in 1880 he won cup and three other prizes at the Crystal Palace under Raines and Teebay, and last year at the same event took first, second, third, and fourth in Dark cocks, the second bird afterwards winning the cup at Birmingham. Brahmas are part of his nature, as his father, obtaining the stock from Miss

Douglas-Pennant, was a successful exhibitor in the 'fifties. He took up the Darks in 1874, and also bred Lights successfully between 1880 and 1886, but found the Darks more interesting and difficult to breed, and since that date has devoted himself to them. He has also been a successful breeder and exhibitor of St. Bernard dogs, his Champion Alta Bella winning the 100-guinea challenge cup and the 200-guinea trophy.

Mr. Norris-Elye was born in 1847 at Rathkeale, in Co. Limerick, where his father had a detached military command. During the famine period his mother devoted herself to nursing the typhus patients. He is a M.A. of Cambridge, with classical honours, and he lived near that city for several years engaged in tuition work. In 1888 he was made a J.P. for the County of Essex. One of the original members of the Poultry Club, in its early days he took a large share in its control, and acted as President from 1892 to 1901. A few years ago he wrote a handbook on poultry, and has been a frequent contributor to journals, but mainly in letters. He is Lord of the Manor and Patron of the living of Utterby, Lincs.

MR. A. T. JOHNSON.

THE poultry industry in Wales owes a good deal to Mr. A. T. Johnson, who has been one of this journal's Welsh correspondents from the beginning, and whose name is well known in connection with poultry journalism, and, indeed, the wider fields of literature. Mr. Johnson took the initiative in founding the Vale of Conway and District Fanciers' Association. This is now known to most of our readers as the Welsh Northern Counties Fur and Feather Association—a flourishing institution whose operations cover practically the whole of North Wales. As the hon. secretary of this body, and also of the North Wales branch of the Poultry Club (which he was largely instrumental in rescuing from a threatened oblivion), and also as the official advisory expert for Wales to the Utility Poultry Club, he was for many years engaged in a strenuous course of organising, lecturing, and judging, and only latterly has the pressure of other work entailed some slackening of his energies in this direction.

Mr. Johnson's father, who farmed extensively as a hobby, kept a large number and variety of pure-bred poultry, so it naturally came about that the son quickly gained both a general agricultural experience and a close knowledge of the feathered stock, in which, as a boy, he took the greater interest. In those early days he bred Modern Game, White Dorkings, Embden Geese, and Rouen Ducks—to mention a few only of his favourite breeds—and gained several prizes therewith. After a break of some four years, when he went in for scholastic

work in town, he settled down definitely to poultry-farming and market gardening at Glen Conway, specialising in Anconas and Indian Runner ducks. While engaged in this undertaking, he began to



MR. A. T. JOHNSON.

contribute to the Poultry Press; and as the claims of journalism became more insistent, so his active participation in the farm work grew less, so that to-day his personal attention is lavished on a few choice birds of one breed or another. Mr. Johnson has written several handbooks on poultry, most of which are directed to prove the great advantage of running poultry as an adjunct to other agricultural work, and all of which are distinguished by breadth of outlook and lucidity of style—qualities that are even more evident in his Nature books and other literary work, where the opportunity for their display is perhaps a little larger.

MR. D. A. SVERBIEFF.

ONE of the pioneers in the development of the Russian Poultry Industry is Mr. D. A. Sverbieff, now of Kursk, formerly of St. Petersburg, whose portrait we have pleasure in giving. The first International Poultry Show, held at St. Petersburg in 1899, was largely his work, and its undoubted success due to his untiring energy and

devotion. He has been interested in fowls since he was ten years of age, which means a period of forty years, and was one of the founders and the soul of the first Poultry Association in Russia, of which he was unanimously elected Vice-President. He planned and carried out the Association's breeding plant, the influence of which upon Russian poultry has been very marked. But, in addition, he is an enthusiastic sportsman, hunter, and fisherman, has given considerable attention to scientific questions, and has the capacity of throwing himself into any duty he undertakes, with a remarkable power of bringing it to a successful issue.

Some time ago Mr. Sverbieff removed from St. Petersburg to Kursk, which is in the South, and this year a branch of the Imperial Poultry Association of Moscow has been established there, of which he has naturally been appointed one of the leading officials. The district around is a great centre for poultry-keeping, as it is immediately south of Tula and south-west of Tamboff. Great quantities of eggs and chickens are shipped thence to England. Up to the present time, however, very little effort has been put forth to secure improvement in breeds and methods, but it is anticipated that the formation of this branch will lead to a considerable advance. With the assistance of Mr. Sverbieff, his wide knowledge and experience, and his great energy, that should be speedily realised.



MR. D. A. SVERBIEFF.

THE CONTINUITY OF PRODUCTION

By J. W. HURST.

"There is no end in Nature, but every end is a beginning."
—EMERSON.

WHATEVER the personal opinion regarding the original order of precedence, the exigencies of reproduction have necessitated an endless chain of eggs and chickens, or chickens and eggs, whichever you will. That which is the end of one man's aim is the beginning of another's, and the object of all demands continuity. The subject is one that may be approached from more sides than one, and involves many side issues, but the present consideration is rather that of the need for continuity in relation to demand than the other, and, perhaps, more abstruse, aspects. It is obvious that much might be said about the factors that make production possible of continuance, and the relation of vitality to perpetuation presents points of interest—particularly to the specialist—but such questions are beside the present purpose, although the underlying principles are vital and demand due recognition in their place.

It is the fact that we are approaching the climax of the year's production that should serve to emphasise the truth that there are beginnings which must not be overshadowed by the apparent end. In the eternal vista of the seasons Christmas looms large in the vision of those who are even now engaged in the work of preparing their produce for the end-of-the-year demand, but the same view includes the spring and the succession of next year's requirements, for which there must also be a proportionate present preparation. From the personal point of view it is not always easy to preserve a proper proportion and escape the more absorbing interest of the immediate future. Yet every present result depends upon the past, just as the future will be consequent upon the present. All this may savour of triteness to the experienced, but there are others who now stand where they once stood. There is danger in forgetting the limitations of former days and ignoring the problems that still confront the beginner; and of these the continuity of production is not the least. I have vivid and salutary recollections of many initial trials, and especially of the unexpectedness of the gaps that occurred in the early output. If all made open confession I imagine that the great majority, including the most experienced, would be obliged to admit that gaps are always more or less frequent in production; and although we don't all confess with equal freedom, the fluctuations of the markets are in some measure referable to the fact, and evidence of its existence. But, oh, those early gaps! The interruptions to continuity that marked the early stages of production and punctuated our ignorance! Indeed, with all our vaunted progress and the many aids to production that have placed us in front of our fathers, there are moments when our knowledge seems no more than a drop in an ocean of ignorance. What we don't know appears to increase in proportion as we learn a little more, but we keep on learning. We have, for example, a more definite knowledge of what can and cannot be done, by the adoption of artificial methods, in the department of early chicken-raising for the spring demand—although we have not yet succeeded

in filling that gap up in the continuity of annual production. We have, again, acquired some useful knowledge relative to the perpetuation of egg-laying strains—although we are not sure whether the character of prolificness is capable of being fixed. But we are in all branches of our work compelled to acknowledge the prime necessity for a common foundation to all our productive progress, that which is generally described as stamina. To the axiom that utility is the test of permanence may be added another—that stamina is the key to continuity.

Given stamina in the stock, other conditions being equal, it rests with the producer to avoid as far as may be those gaps in his production which are at once the despair of his salesman and his own undoing; and in considering the ways and means of continuity in production we are getting down to practice, and it is in *doing* that we learn our theory or system. If we had not previously understood the matter, we shall now begin to realise the importance of the past in relation to our present needs, and such facts as the age and hatching date of our stock—together with their condition—will show in the results the measure of success that marks our methods of management. Egg-production, the basis of our work in either of the divisions of utility-production, becomes a matter of vital and very present importance; whether we require the eggs now for table purposes or shall presently require them for incubation. If for the former object the results are not approximating to our anticipations, and if for the latter the indications are not propitious to a requisite supply of fertile eggs this side of Christmas, there is no time to lose in finding the reason and modifying the treatment to the attainment of the desired—and necessary—end. No work in the fattening of poultry for Christmas, however exacting, must prevent due attention to such details. The end of one production must coincide with the beginning of another and the continuity of the whole process, else gaps will multiply and expand. There are those who make special efforts for special demands, which is all very well if their supply is up to date and sufficiently adequate for their needs; but the average experience of the practical goes to show that there is greater safety in a continuity of production. There are so many possible hindrances to the realisation of anticipations (and the striking of a market on the rise is not always easy to repeat) that there is, upon the whole, more certainty and ultimate satisfaction in the average of a more constant annual output. In other words, it is not altogether wise to put all the eggs in one basket, and those who pin their faith to turkeys, for example, may, after Christmas, regret their want of preparedness for the spring chicken trade. There are, again, many surprising fluctuations in the latter production, and the profit over a long-period output is often more satisfactory. The concentration of the efforts of management is at some periods more essential in one department than another, but it must never be allowed to become exclusive. Even the work of a specialist is divided, and each division of his labour demands attention in the general interests of continuity. Beginnings and ends are so interwoven that those who confine their hatching operations to a few early months have by no means finished with the beginnings of things until next season, because the measure of their then success depends so largely upon their inter-

mediate management. Although they have attained one end they have commenced another beginning in the continuity of their production, whether they always fully realise the fact or not.

In suggesting the desirability of continuity in production, it must not, of course, be understood that the beginnings are to be absolutely without any reference to the expected ends, but that there must be a continual overlapping of efforts in the endeavour to meet a succession of demands, and these successive demands are quite sufficient to provide continuity of employment in production. Thus, although chickens are always in demand, the character of the demand varies, and whilst with ducks there is practically an all-the-year-round demand, there is a period in which ducklings are specially required; so, also, with goslings and fat geese, heavy turkeys and poults—in all

spasmodic marketing, without reference to deductions based upon experience. Moreover, deductions from experience must be qualified by the changes that are liable to occur, during any season, in the conditions of supply and demand and the relation of foreign competition to the home production.

No one is more ready than the writer to admit the difficulties that beset the endeavour to maintain adequate continuity in individual production, and the failure to prevent gaps is a very general hindrance to success. It is one of the various reasons why poultry-production has so commonly failed to satisfy annual "living" requirements, as it is certainly a chief cause of disappointment in attempted direct dealings between producers and consumers. The organisation of co-operative methods has removed some of the difficulties, but the ultimate appeal of the industry must be to the



BREEDING-PENS ON A LANCASHIRE FARM.

[Copyright.]

departments there is variability, but always a poultry demand. Moreover, it must be remembered that although we talk much about winter eggs, there is an all-the-year-round demand. It is, of course, very desirable to know what one is producing for, and to have some definite aims regarding probable marketing periods. In putting down eggs for incubation the bulk would naturally, as far as possible, be regulated by dates that promise a wider margin of profit in the end. The end of each operation must be in view at its commencement, and no anxiety to commence production should be allowed to dim commercial foresight. But so sensitive is the market and so unexpected the fluctuations, often entirely due to influences beyond the knowledge of the average producer, that a reasonably distributed output (with a view to the average expectancy of seasonable conditions) is likely to produce a better average result than

individual producer, with whom the burden of continuity in production remains. The aggregation for marketing purposes of the produce of a group serves the purpose of all by reducing supplemental cost and increasing the returns, but the periodic insignificance of the output of the personal unit is a cause of weakness that can only be remedied by those most nearly concerned.

All this means ceaseless toil, but the commercial producer cannot reasonably expect any other lot, and those who tell him that he can make a sufficient profit at one season to carry him over another—and unproductive—one are as misleading as others who suggest the possibility of a three months' holiday after nine months' labour. All such theories are opposed to the experience of practical men. Those who are out to make money, in whatever proportion of that income that is vaguely referred to as a "living," must learn to understand the value of

continuity in their work of production. Any or all branches of production that may be undertaken must each and severally receive due attention at every stage of progress, otherwise future loss will result from present and past neglect; and if the loss does not eat up the profit, the remaining margin of the latter will show a very inadequate balance at the end of the twelve months' work. This is, moreover, quite as true in the case of the small man as in that of the large. The former is often so overjoyed at the sight of a full egg-basket during a comparatively short period that he entirely overlooks the lack of continuity in his production, and that the full months are lost in the void of the gaps. The larger producer, whose results are of greater importance in proportion to the bigness of his enterprise, must be proportionately strenuous. Incubation, rearing, fattening, and breeding are all more or less concurrent necessities; and the strength of his productive chain is that of its weakest link. The stamina and breeding or laying condition of his stock birds, birds of various descriptions whose productiveness is required at different seasons; the method of hatching and the hatching percentage; the manner of rearing and the rearing percentage; the system of fattening and its measure of success. These and the innumerable details involved must be subjects of constant thought, together with all the considerations connected with the anticipated course of the market.

To change but one word in the superimposed text: There is no end in production, but every end is a beginning.

OLD ENGLISH GAME TO-DAY AND THIRTY YEARS AGO.

By HERBERT ATKINSON.

THE advent of this aristocrat of the poultry-yard to the show-pen occurred about 1885. Previous to that period they were kept by five classes of fanciers—viz.:

(a) Cockers, who kept them for their indomitable courage and dash in those matches in spring when, after careful preparation and fair matching, they fought so gallantly for their lives on the green sod.

(b) Those who kept them for the superlative quality of their flesh and eggs, both of which were so far before any other breed that they refused to eat the coarse, bony fowls bred for sale, or the large watery brown eggs vaunted as superior by salesmen.

(c) Persons who kept them for their beautiful plumage and graceful shape, which were calculated, as an old fancier once told me, to "delight the eye, to interest the mind, and to gladden the heart."

(d) A small class who kept them for their feathers, the only ones suitable to make the best artificial flies for fishing.

(e) Those who kept them solely for profit, caring nothing for breed or purity so long as they could win prizes and sell at remunerative prices to ignorant or confiding amateurs.

We now proceed to what a quarter of a century of exhibitions has done for the breed. In the first place, it has caused it to be much more widely

known to the present generation of fanciers than it would otherwise have been. It has increased the number of its admirers and breeders, and there is now less difficulty in obtaining the breed than formerly. But I regret to say it has not improved the breed itself. This, of course, was not to be expected, since it had long since attained perfection, having for centuries been bred, with far more care than any breed, by men who had closely studied the subject for generations, and who gave the same attention as, or far more than, is at present given to the breeding of racehorses.

Since its advent in the show-pen many flocks have been spoiled by those who from ignorance, or self-interest, have advanced as points of merit what were always faults in the breed. Let the fancier go to a show, and afterwards read the reports by newspaper critics on the birds. I remember a few specimens of foolish criticism. One was "*wings too long.*" Who ever saw a game

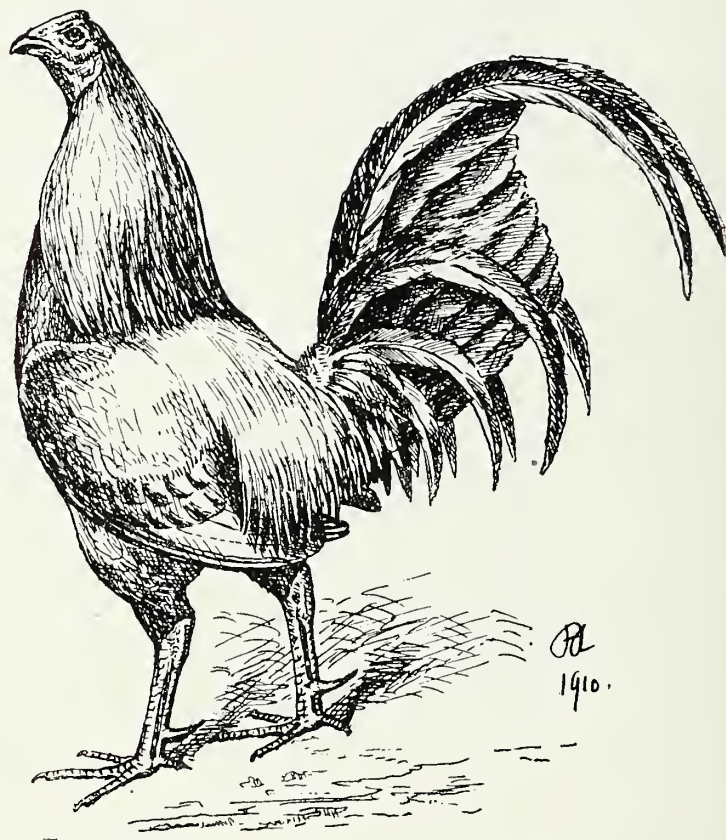


FIG. 1.—THE TYPE OF THIRTY YEARS AGO.

An original drawing, by Herbert Atkinson. [Copyright.]

cock's wings too long, or too wide and powerful, to give the requisite strength of dash, and power to fly a quarter of a mile with ease? "*Tail too high*" is another. The high, strong tail is necessary to support a cock when fighting; the first thing a coward does is to droop his tail, and a high-tailed cock is shorter and faster in action than the slanting Malay-tailed bird. A third is "*stand's nice and wide.*" All cockers know a bird's thighs should follow the line of the body, and a narrow-heeled cock is more deadly with his spurs. Fourth comes "*fine deep breast.*" A deep-keeled bird carries much useless weight and does not balance properly; a wide, shallow breast with abundant meat (muscle) is the thing to give strength to the

wings and plenty of meat on the table, like the pheasant, not like the turkey. I will not tire my readers with more of this, but impress on them that the Old English Game cock has *no fancy points*, every point, however small, having a practical value; and these points must not be exaggerated, otherwise he loses balance and perfect proportion when in use, when only he can be properly judged. During this era of exhibitions we have lost symmetry, fire, what the old breeders call "the raging pride," and we have lost quality; let me impress on breeders to-day the importance of Quality (a capital Q). This is the most renowned virtue of the breed in bone, flesh, feather, and eggs, and has in many cases sadly deteriorated. Another cause of deterioration is the craze for size. It has been erroneously stated in its support "that a good big one would beat a good little one," and nothing is a greater fallacy. Take horses, hounds, cattle, &c.—the best are those of average moderate size, while the largest specimens produced, if not unsound, as usually happens, rarely distinguish themselves. The old writers always said a cock of six pounds was big enough to fight anything—even one nine or ten pounds—and the highest weight in mains in the palmy days of cock-fighting was four pounds eight ounces (about five pounds and a quarter on his walk).

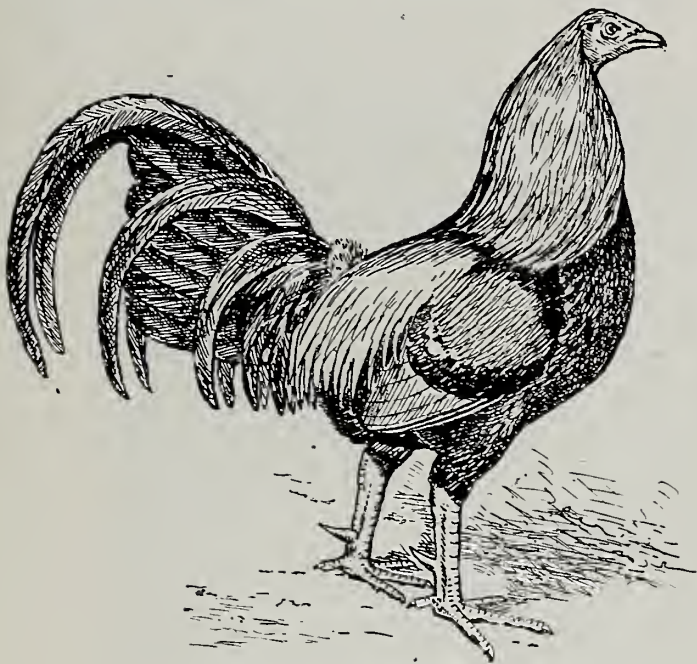


FIG. 2.—THE MODERN TYPE. [Copyright.
An original drawing, by Herbert Atkinson.

What do we gain, then, by cocks of seven and eight pounds? The hens lay no more, nor larger eggs, there is not the extra amount of flesh (as might be supposed), the extra weight being made up of larger bones and larger intestines, gizzard, &c., caused by the over-feeding required; there is a loss of activity and an increase of food consumption; so that this increased size is altogether a delusion and a snare. Many birds we see at shows nowadays have thick, round legs and toes; whereas, to show high breeding, the legs should be of good,

hard, round bones, the sinew standing behind as in the legs of a racehorse or a deer, and their toes tapering to the nails. Often, too, a bird with silky, narrow feathers is admired. Now, really good feather should be hard, strong, glossy, and elastic, with large, tough quills and an absence of fluff or down, the so-called hard feather of the fancier often being weak, brittle, and insufficient. I cannot express myself as clearly about the alteration in this breed during the last quarter of a century as can be seen at a glance from the two illustrations to this article; the one (Fig. 1) illustrating the type of bird the Old English Game cock should be, being a portrait of a rather noted bird of mine over twenty years ago; the other (Fig. 2) the type we see so often winning prizes under all-round judges at poultry shows all over the country to-day. The up-to-date fanciers who read this must make their choice, but Fig. 1 is the Simon Pure, and of far more economic value than the other.

I regret to say that another race of birds, the "Aseel," has equally suffered in about the same period by exhibitors' fads; but I hope and trust that by careful pedigree breeding and good judging we may see both breeds maintained in their purity for many years, since I rejoice to say there are many lovely birds of both breeds still existing and carefully bred and cared for by their fortunate owners, and as the knowledge of them increases, their points and qualities should be better understood.

One more thing is that many of both these breeds, when exhibited, are far too fat. A nice, cocky, sprightly bird in fine condition without superfluous flesh is required to show the agile grace of movement and shapely forms to the best advantage, and these points are lost in the fat, inactive condition we often see them in the show-pen. Such fine condition is best attained on a good free range where little feeding is required beyond a handful of sound corn daily, while as breeding stock these fat birds produce weakly and diseased progeny. The English Game fowl, properly kept, is noted for its strong constitution and for living and retaining its productive powers to a great age. Instances have been known of their attaining the age of eighteen and twenty years, and of hens laying eggs up to thirteen years, but such birds have always been kept under natural conditions. High artificial feeding on biscuit meal, &c., would soon destroy their constitution and stamina. Finally, if we wish to retain this fine old breed, judges and breeders must look for purity of race, gameness of aspect, perfection of shape, symmetry, good quality of bone, and, last of all, beauty of plumage, and not be led away by fancy points created only by the fads and fancies of amateurs, and that are entirely useless and not even typical of the breed. I entreat those who want change and novelty to seek for it in that wide field of new so-called "breeds" of poultry that are produced almost annually, and not to experiment on a fine old breed which so many years ago reached the apex of perfection, and is a pleasure to those who like the old and tried in preference to the new and unproven.

THE CURSE OF "BLACKHEAD."

By HAROLD LEENEY, M.R.C.V.S., &c.

IT is not yet realised in this country that the most serious plague among poultry that has been known in these islands is gradually spreading, and scarcely a county is now clean. Probably no district in which turkeys are reared has escaped the disease. From almost all parts of England and some districts of Ireland we have received dead birds for examination during the past year, and have found them affected with *coccidiosis*, or the malady first made widely known in the United States of America under the name of "blackhead." It is somewhat of a misnomer, as the Rhode Island Bulletin No. 141 says (and from this we shall quote largely in the present article) "Since the colouration which has led to the general use of this term is by no means constant, and, on the other hand, may obtain where *coccidiosis* is not present." The impatient poultryman may ask "What's in a name?" and we might reply, "Two generations of teachers trying to undo it, if it is a wrong one." Rabies in dogs has been called hydrophobia, and the public have learned to believe that a "mad"

namely, poultry-rearers who have not had previous experience of the malady, and whom it is desirable to protect by a knowledge of the symptoms that will enable them to take suitable measures for prevention or suppression. In the disease under consideration "four-fifths of the birds in infected yards die before they are six weeks old." How, then, can the term "blackhead" apply to those without a comb, which does not turn black when they have one, but a deep purple, and as we have seen is not necessarily discoloured at all?

The American Animal Bureau with characteristic energy has investigated this plague, and Rhode Island, where turkey-breeding is so famous, has led in experiments conducted at the station in connection with the Rhode Island State College. Although the malady has been recognised only for about twenty years, quite an extensive literature is condensed into the Bulletin recently issued, and covering some 130 pages of carefully-compiled matter, with valuable reports of experiments conducted by the institution. When we compare this



FIG. 1.—WHITE HOLLAND TURKEY IN ADVANCED STAGE OF BLACKHEAD INFECTION.

dog dreads water. Three generations have not sufficed to correct this error, and we therefore regard a misnomer as a misfortune. It is so in the case of "blackhead." Any one prominent symptom, like "pink eye" in horses suffering from influenza, is laid hold of by popular consent, and the local symptom employed as a name for a constitutional disease. It is not a pathological offence merely; it is misleading to those most concerned—

with our own inert Board of Agriculture*—inert, that is to say, so far as poultry diseases are concerned—we experience a feeling of disappointment, if not a sense of shame. The American nation spares no expense in education, and most of the States have stations better endowed than our single one. So late as 1907 an English authority, in reply

* Since penning the above the Board of Agriculture has announced its intention of investigating the disease "said to be prevalent"—

to an American question, replied, "The disease is, so far as I know, unknown in England," yet it was not long after that date that the present writer was receiving numerous subjects for post-mortem



FIG. 2.—SECTION OF DISEASED CECUM SHOWING THE NATURE OF THE PARASITIC INVASION.

a—Blood-cells inside a vessel cut tangentially. b—Coccidia in spaces not showing the host-cell nucleus. c—Groups of coccidia. d—Free nuclei of connective-tissue cells. e—Connective-tissue cell entire. f—Connective-tissue cell invaded by small coccidium. g—Small coccidia free (oval or elongated forms). h—Small coccidia free. i—Blood-cells inside a vessel cut transversely. j—Giant cell enclosing a coccidium. k—Coccidia in cells. l—Connective-tissue stroma. m—Remains of a crypt cut tangentially. n—Coccidia in lumen of crypt. o—Spindle cells. p—Eosinophiles.

examination which had died from so-called "black-head." From this we must conclude that the disease either took a very long time to become known to pathologists or else that its spread was extremely rapid. That the latter is the case is much to be feared, although the mortality has in no place in this country equalled that of Rhode Island, whose famous industry is practically ruined.

The spread of the contagion here resulted from much the same causes as in the States—namely, the apathy and ignorance of breeders in not calling in scientific investigators when the losses began, and in listening to nostrum-mongers and those who, recognising that so many bird diseases result from bad management, attributed this infectious malady to overcrowding and in-breeding, and consequent loss of stamina. It was a natural mistake to make, but millions of turkeys and other fowl would have been saved if the true nature of the disease had been recognised. Proceeding on these grounds, it was thought that the introduction of new "wild" blood would remedy the matter, and "toms" were procured from the still numerous wild flocks of America and Canada. Needless to say, no good resulted. They proved quite as susceptible as their domesticated brethren, and their stock no more resistant. So long ago as 1902 the Poultry Division of the Rhode Island College

recognised the importance of investigating the increasing losses among rearers, and Cushman frequently refers to "bowel trouble," "distemper," "cholera," but the popular name of "black-head" does not appear up to that time, although it may have been in use among breeders. In the following year a report was issued under the popular name of "Blackhead" with the following comment: "It could have been prevented from becoming so general if vigorously attended to when it first appeared, and may now be stamped out in this State by means similar to those used by any Board of Health." Although this advice was sound, it could not well be acted upon until more was known of the nature of the disease to be dealt with at that time, but what about ourselves in Britain? We had all the advantages of the American investigators to aid us, several years before the first case was recognised in this country, and if half the trouble had been taken by the Board of Agriculture that has been expended over the gooseberry mildew, many thousands of turkeys and other fowl would have been saved. But our Board of Agriculture is starved for funds, while party politicians fly at one another's throats over questions of less importance. Another difficulty in the way of investigation may be mentioned in excuse for our own authorities, and that is the one of finding the casual organism free from subsequent bacterial invasion of the cadaver to be examined. The present writer sent several livers, showing the typical lesions of the disease, to the Veterinary Department, and in each case received the same reply—namely, that decomposition made it impossible to procure cultures of the specific microbe, which was first considered by Smith to be a protozoan organism be-



FIG. 3.—THE DISEASED LIVER OF AN ADULT TURKEY WHICH DIED OF BLACKHEAD.

longing to a new species, and to which he gave the name of *Amœba meleagridis*. Later investigators have discovered that a coccidial cyst is the primary cause, but they, like our own Board of Agriculture,

were baffled by the development of intestinal bacteria from which the former could not be isolated and cultures made. Many solutions, including formalin, thymol, boracic acid, salicylic acid, carbolic acid, potassium permanganate, &c., were employed. The results of this attempt to secure development of the cyst may explain why so many methods of treatment of "blackhead," which depend upon principles intended to work antiseptically on the organisms in the alimentary tract, have proved of no avail in combating the disease.

In the illustration the cysts in the form they are liberated from the body will be seen, and the next figure represents their probable stage at the time of infection. These cysts, or, as we may call them, eggs, like those of many other parasites which have been longer studied—tapeworm ova, for instance—would seem to have their envelopes or shells dissolved in the digestive fluids: coverings which we have seen are so resistant to all the ordinary substances which kill disease germs. The liberated sporozites, as they are called, or such of them as are not carried out of the bowel with the excreta, penetrate the epithelial cells of the intestines; the cæca, or blind guts, being the part specially subject to their attentions. Whether one or both cæca (poultrymen should know these horns or blind pouches of intestine) are affected depends upon what point or position in the gut has been reached when sporulation takes place. From this stage forward a pathological condition is set up, by which a fibrinous exudate from the bowel becomes mixed with pus-like material, and presently occludes the channel, or leaves but a narrow lane open. Many of the birds sent to us, poults and chicks of all sorts, including Guinea-fowl and ducks, have had both cæca completely filled with solid matter. From the bowel the liver is infected, probably through the duct leading from it into the intestine, the morbid material easily finding its way, and in the tissues setting up circular areas of disease which, to the naked eye, appear depressed and slightly below the general level of the organ; they are bright yellow if of no very great duration, and pass from this to grey and other shades as the organ is more and more involved. The poultryman need be no pathologist to recognise these rounded depressions; they are quite unlike the lesions of tuberculosis or any other disease common to poultry. Diagnosis during life is difficult, as the behaviour of a sick bird is very much the same, no matter what disease affects him, but post-mortem examination resulting in the discovery of these round spots on the liver enables the investigator to decide with certainty. The cæca, distended with solid matter, may be due to other causes, but the liver lesion is diagnostic, and the flock-owner will do well to kill at sight the first bird that droops, and examine the liver.

We want to be quite clear as to the origin of the infective process. It is "by the ingestion with food of a variable number of the coccidial cysts which have come from the excrement of some diseased bird." In the Bulletin already referred to, a number of experiments are recounted in which healthy turkeys of different ages were fed with the morbid material. The great majority became infected. Upon this point there can be no doubt; it is by feeding on tainted ground that the organism is conveyed from the diseased to the healthy, which display various degrees of resistance or

apparent immunity. The experiments afforded us fuller information as to how new flocks on distant ground could become diseased. Sparrows and other wild birds can be the victims of *coccidiosis*, and many have succumbed in infected areas. Birds, cart-wheels, dust, the feet of men and of beasts, may convey the infection. That infection may be conveyed by eggs is easily conceivable, since many hens examined have shown extensive *coccidiosis* of the oviduct, and sittings from such birds, before they succumb to general malaise, might convey vast numbers of the causal organism.

Our space has been devoted almost entirely to description of the malady and its distribution, since in this, as in all poultry ailments, it is of the first importance to recognise and stamp out rather than to treat medically. Individual treatment is in most cases out of the question, as occupying too much valuable time, and any curative measures that are undertaken must generally be applied to the flock as a whole. It is conceivable that by an aperient a bird recently infected, but as yet showing no signs of illness, might be relieved of many of the cysts, and thus be saved, but attention is not likely to be given to birds apparently well. Disinfectants, for the reasons already given, are ineffectual. There are, of course, many claimants to the possession of a specific, but all fail under proper trial. An anti-coccidial serum offers the most hopeful prospect. Meantime, the most practical advice we can offer is immediately to segregate every sick bird, and if in any doubt make a post-mortem examination with a view to prevent the spread of infection. Use the utmost caution in introducing fresh stock. Disinfect thoroughly and often. Lime, soot, and salt the surface before turning over stale ground, and remove to new as often as possible.

The photographs accompanying this article are reproduced by courtesy of the Rhode Island College.

A Free Poultry Farm.

The Missouri State Poultry Board is determined to make poultry-keeping move forward in that State. Its latest action is an offer, open to the world, of five acres of good Missouri land to someone who is well versed in the poultry and agricultural business. The farm is to be given free in competition to the one who in an essay sketches out the best method of making a living with poultry on five acres of land. That should be possible—on paper.

More Money for Poultry.

The Cornell example is evidently to be followed. That £18,000 for poultry will soon be more than equalled in other States. The Governor of Illinois has stated that he will sign a bill if passed by the Legislature for \$100,000 (£20,000) to put the Poultry Department of the Illinois State University on a firm basis.

Egg Circles in New Zealand.

Late advices show that the Egg Circle Movement is being taken up with enthusiasm in New Zealand, and committees have been formed at several centres. So far as announced, these are not co-operative in the English and Danish sense, but that will doubtless come in time.

THE CRYSTAL PALACE SHOW.

By WILLIAM W. BROOMHEAD.

HELD at the Crystal Palace, Sydenham, on November 15, 16, and 17, the ninth Grand International Show may be recorded as a great success. Certainly the entries in the poultry section were not as numerous as they were at last year's event, due, so I was told, to the withholding of many novice classes from the schedule; nevertheless the late show has proved once more that the Palace is *the* show of the season. It is hardly possible in the space I have at command to give anything like a detailed account of the event, and I do not mean to attempt it. A few brief notes will, therefore, have to suffice.

The catalogue opened with breeding-pens, of which there was a fair display, although the class for feather-legged breeds had only four entries, no doubt most of the fanciers of these kinds taking it for granted that the almost invincible Buff Cochins from Durham would be competing in the class. In the Dorking Club Show two classes were cancelled, but there was a good turn-out, and the winning Silver Grey cockerel took the cup. The Lights were the stronger section of the Brahma Club Show, but the trophy went to the winning Dark cockerel. The weakest classes of Cochins were those for Black cock or cockerel and White cock with four entries each; but in other respects there was a good representative entry. The first prize Buff hen won the trophy, as well as the challenge cups for the best hen and the best bird in the show.

Black Langshans came up well, and there was a fair turn-out of Blues, although the cock class was cancelled, and since each of the six entries in the hen class were lettered, it is evident that that class had been cancelled also, and put on again at the last minute. The Croad Langshan Club Show had a strong entry, but it is a pity the old cock class had to be cancelled. Here one exhibitor won all three first prizes, his pullet getting the gold medal.

Orpingtons were not as numerous as they have been, but the quality was there right enough. Mr. W. M. Bell scored heavily in Blacks; a cockerel won the special for the best Buff, although the winning hen must have been very close up for the honour. Cuckoos were not strong, but there was a nice show of Blues. The entry in the Variety Orpington Club Show was strong, Whites easily leading the way.

The United Wyandotte Club Show was well supported, most varieties being represented. The cup for the best went to the winning Silver-laced cockerel, while among the novelties in the A.O.V. cock class was an exhibit described as a "Blue Duckwing." The Leghorn Plymouth Rock and Andalusian Club Show formed quite a big section, and attracted some nice entries. The best Leghorn was the winning White cock, which also won the trophy for the best male bird in the show. The now famous Barred Plymouth Rock pullet won the cup for the best of her breed, while a hen got the "Thornton" trophy for the best Andalusian. The winning Black cockerel took the Minorca trophy, but who won a similar award with Sussex I am unable to say.

It being the Houdan Club Show entries were

good, and the cup went to the winning cockerel. There were some really good Malines on view, but the one essential of the breed was overlooked by the judge. La Bresse were fair. It was the show of the White La Bresse Club, but as such it was not great. The Blacks were better, and the winning Black cockerel is the best of his kind I have seen so far. There was a capital show of Faverolles, while Hamburgs and Anconas were also good. The Campine Club held its show here, and obtained some good entries. Rhode Island Reds came up well, but the winning cock would pass muster as a Red Wyandotte.

The whole of the Game classes were representative, and these included Indian, Sumatra, Aseel, Malay, Modern, and Old English. The "odd" classes, such as those for Rose-comb, Black Leghorns, Scotch Greys, Spangled Wyandottes, White Indian Game, and Brown Sussex, had the usual number of entries. The Yokohama Club Show made a nice display, and so did the Silkie Club Show, both breeds being quaint and attracting a good deal of attention.

The selling classes were a show unto themselves, and Bantams, Ducks, and Turkeys were all well supported, although there was a decidedly weak show of Geese.

FANCIERS AND FANCY MATTERS.

By WILLIAM W. BROOMHEAD.

Rhode Island Reds—The Club Show—Type—The Leghorn Club—Two Shows—"The Event of the Year"—December and Other Shows.

RHODE ISLAND REDS.

During the present show season the Rhode Island Red fowl has come somewhat prominently before the poultry fancy, and, apparently, the breed has at last been taken up in this country as one worthy of cultivation. Not only have entries been good at most shows where the breed has been catered for, but the cockerel which won first and special prizes at Manchester Show was claimed at £20, the highest price given for a Red in England. This bird, it may be interesting to note, is a Canadian-bred one, having been hatched from an egg imported by its rearer, Mr. Edwin Banner, of Small Heath, Birmingham. To have an average entry of over twenty in eight classes is not altogether rare, perhaps, with such popular breeds as the Orpington and the Wyandotte; but it has seldom been accomplished of recent times with a one-colour breed having only two varieties—the Rhode Island Red, as its name implies, must be red, while the varieties are the rose-comb and the single-comb. As regards the entries, it is the more remarkable that they were divided among three shows, all held on the same days. Thus, at Manchester, on October 25, 26, and 27, there were twenty-seven entries in the class for cocks or cockerels and twenty-five in that for hens or pullets, while at Epsom, on October 26, where similar classes were provided, the entries were fourteen and fifteen respectively. The best classification was given at Sunbury-on-Thames, on October 26 and 27, four classes being put on for the breed; the result was eleven cocks, twelve hens, thirty cockerels, and

twenty-eight pullets. During the same week, however, at Hadleigh, Suffolk, the two classes scheduled failed to fill and were cancelled.

THE CLUB SHOW.

Writing of Reds reminds me that the annual show of the British Rhode Island Red Club is to be held at Sheffield this month in connection with the Combined Specialist Clubs' Show. At this event no less than twenty-six special prizes will be offered for competition, and among them are a challenge cup for the best Red cockerel, to be won three times by the same exhibitor before it becomes his absolute property; a cup, value three guineas, for the best bird exhibited, to be won outright; and a rose-combed Rhode Island Red cockerel, value thirty dollars (from a fancier in Canada), for the best rose-comb. Competition is open, but that for the whole of the special prizes offered is restricted to members of the British Rhode Island Red Club. The secretary of the club is Mr. George Scott, The Windmill, Pudsey, Yorkshire, to whom applications for membership should be made.

TYPE.

I have ever been a stickler for type, wherefore I am delighted to hear that with the idea of encouraging better type in Partridge Wyandottes, Mr. F. W. Myhill is offering a valuable special prize at each of the next three shows of the Partridge Wyandotte Club, the first being that at the Combined Show, Sheffield, this month. Mr. Myhill's special is to be awarded to the bird which, in the opinion of the judge, possesses the best Wyandotte type, and any bird securing an award not lower than a "reserve" is liable to compete, although selling class specimens are debarred. By the way, at the Partridge Wyandotte Club Show there is an excellent list of special prizes, and several gold medals will be given in addition to the club's challenge cups, the whole of the specials, as at most club shows, being open only to members. The hon. secretary of the club (Mr. W. M. Elkington, Ladye's Hill, Kenilworth) is anxious to hear from two shows—one in the West and the other in the North—that would accept a guarantee from the club for the novice classes in connection with its novice competition, the special condition being that a Wyandotte Club judge is employed—rather near the "judge-must-be-a-member" rule, is it not, Mr. Elkington?

THE LEGHORN CLUB.

At the annual meeting of the Leghorn Club, held at Manchester Show, the hon. secretary reported the club as being in fair working order. There was a slight falling-off in paid subscriptions, and, owing to heavy expenses incurred during the year, the number of special prizes had been curtailed. The balance-sheet showed a sum of 6s. 5½d. in hand—not a very encouraging amount, certainly. Two new challenge cups had been added, one for Blues and one for Partridges, while ten new members had joined the club. By the way, just what difference there is between the Partridge and the Brown Leghorn, in the male birds particularly, I for one should like to know. It cannot be in marking nor in colour, since both varieties, as well as that known as the Black-Red, are similar in both points. There is, of course, a decided difference in the markings of the females;

but, unless the males are to have laced breasts (such as are found in pullet-breeding cocks), there will be much confusion. However, to return to the club "meet," the election report shows that Mr. G. Tyrwhitt-Drake, president, and Mr. W. Clarke, hon. secretary and treasurer, are returned unopposed, while the vice-presidents are Rev. T. W. Sturges and Messrs. L. C. Verrey and John Hurst, and the committee Dr. H. Corner, and Messrs. J. W. Morton, F. Tootill, H. Williams, R. Chippendale, E. Denyer, R. English, and O. M. Howard.

TWO SHOWS.

Two shows worthy of special mention, although over for the season, are Manchester and Kendal. At the former there was an entry in the poultry section of 2,272, an increase of 280 on last year's total, and this places Manchester in the very front rank as one of the "classical" events of the year. At this show the president's cup for most points won was awarded to Miss R. B. Babcock, while the much-coveted "Manchester" challenge bowl was awarded to this lady's winning Andalusian cockerel. At Kendal, the great specialist show of Game and Game and Variety Bantams, there was a splendid turn-out, although the four classes for Rose-comb Bantams and two for Pile Game were cancelled. At this event Miss Babcock's Black-Red cock won the president's special prize for the best Old English Game fowl, and Mr. J. R. Aspinall's Spangle hen special for the best bird of the opposite sex. In Modern Game fowl the best exhibit was Mr. Walter Firth's Brown-Red pullet; while the challenge cup for the variety—a special for which Mr. Firth did not compete—was awarded to the winning cockerel exhibited by Mr. C. Triffitt. In Old English Game Bantams Mr. John Dawson's Wheaten pullet secured the special, while that for the best of the opposite sex was won by Mr. John Millican's Spangle cock. Most of the cups were offered for Modern Game Bantams, and they were won as follows: The "Ainscough," for Black-Reds, by Mr. O. F. Bates's cockerel; the "Fred Smalley" and the "E. H. Sikes," by Mr. A. M. Crabtree's Pile hen and cockerel respectively; the "Dan Clayton," by Mr. Shaw Haigh's Brown-Red hen, the gold medal for the best of the opposite sex going to Miss E. M. Smith's Brown-Red cockerel; the "Hartley" (two), by Mrs. F. W. Smith's Birchen cockerel and Mr. E. M. Bottomley's Birchen pullet; and the "Fred Smalley," for Duckwings, by Mr. W. P. Barnes's hen. Mr. Bottomley's Birchen pullet also won the "Dan Clayton" trophy and the president's special for the best Modern Game Bantam, there being 285 birds entered in that section. The strongest classes in the show were those for Pile Game Bantams, the entries being 10 cocks, 14 hens, 27 cockerels, and 16 pullets in the open, and 17 cocks and 10 hens in the two £2 limit classes.

"THE EVENT OF THE YEAR,"

To wit, the Combined Specialist Clubs' Show, which is to be held at the Drill Hall, Sheffield, on Wednesday and Thursday next, 7th and 8th inst. This event has been organised "by fanciers for fanciers." It reminds me of former years, when the Grand International came into vogue to fight the Great National. What a shout there was then about a show organised "by fanciers for fanciers"!

But the motto was silently dropped when the International stepped into the National's shoes. The International had a hard enough struggle to make both ends meet when it had no fixed abode; but it came into its own shortly after it settled at Sydenham. And rumour says that it now possesses a nice little nest-egg which it proposes to spend in some useful way for the benefit of fanciers, either judges or exhibitors. I am glad of this, because rumour had it at one time that the Palace under its new title was dropping into the way of the old, and being run as a money-making concern. The "Combined," however, begins with 275 classes guaranteed, and a big enough guarantee fund to cover all other expenses. And—the committee has determined to publish a balance-sheet for the information of the Fancy. This, truly, is "by fanciers for fanciers."

DECEMBER AND OTHER SHOWS.

Up to the time of going to press the number of shows announced to be held this month is exactly sixty, but there will be others, no doubt. Of them five will be held to-day (December 1), four of which are in Wales, while on the 3rd inst. there are seven. During the first full week—from the 5th to the 10th—there are such important events as Totnes, Devon, on the 6th; Leeds, on the 6th, 7th, and 8th; Pembroke, Canterbury, and Tavistock, on the 7th; the great Dublin Show (85 poultry classes), on the 7th and 8th; the "Combined," at Sheffield, on the same days; three shows on the 9th, and nine on the 10th. In the following week there will be a show on the 12th; Llanelly and Caterham on the 13th; York (with 117 classes, and including the Black Wyandotte Club Show), on the 13th, 14th, and 15th; the Old English Game Fowl Club Show, at Oxford, on the 14th; and an important exhibition at Plymouth in connection with the fat stock show, on the same day; Cambridge on the 14th and 15th, two other shows on the 15th, five on the 26th, and the last of the year, so far announced, at Polesworth on the 28th. Already for 1911 six shows are booked for January and three for August.

THE WHITE COCHIN.

THE Cochin cannot be voted a popular breed, either from a utility or an exhibition standpoint. Many years ago it figured well up the list of general purpose fowls, but at the present time one would scarcely be justified in recommending it for such an end. The chickens are particularly slow growers, and the breed is not the one to select for the production of early chickens for the spring markets. Then, again, as table-fowls, their yellow skin and feathered legs are against them; while the smallness of their eggs—and they are small—is not in their favour when egg-producers are being considered. But the breed has its good points. If reared in a hardy manner the pullets will lay a batch of eggs in late autumn or early winter and be ready to sit and brood when "cluck" hens are at a premium. And better mothers than Cochins there cannot be, despite the feathers on their legs and feet.

It is the White variety, however, that must be considered in this note. As a rule it does not attain to the same size as the Buff, the Partridge,

or the Black, but it is a true Cochin for all that; and when properly penned for show purposes there is not a more beautiful whole-coloured variety. It must be properly penned, however, since no fowl looks worse on the show-bench than a badly-prepared and ill-conditioned White Cochin. The plumage must be pure white, and free from any straw or "sandy" shade, or ticking of black or buff. Sometimes, nevertheless, the male bird will show a straw tinge on his upper parts, if he has been for long exposed to the weather; but although such an effect will, of course, tell against him in strong competition, it is not so detrimental if his under colour is pure white.

In the standard of excellence issued by the Poultry Club in its recently published work, twenty points are allowed for colour, fifteen for size, and ten for general symmetry. Type, however, is an important item, and following it should be profuseness of feathering, particularly on the shanks and the middle and outer toes. It is a difficult matter indeed to keep the "boots" in good order; the best way to do it, granted the birds have been bred from a good-footed strain, is to have them in



WHITE COCHIN PULLET.

a house and shed with a flooring of very fine sand, and to let them exercise on well-drained grass-land with shortly-cropped pasture. It is also important to see that the birds can leave and enter their house by a wide door, so that their foot furnishing will not be damaged when the fowls pass through it.

THE BLACK ORPINGTON.

(See Frontispiece.)

ORIGINATED some twenty yeats ago, the Black Orpington has maintained a steady popularity as an exhibition fowl. The reason of this is not far to seek, for it is (1) a very handsome bird; (2) easy to prepare for exhibition; and (3) no double mating is required, equally good birds of either sex being produced from the same pen. The late Mr. W. Cook, who originated the breed, is stated to have used a cross between a Minorca cock and black sports from Plymouth Rocks, mating the progeny back to clean-legged Langshan cockerels. However this may be, the result has been a short-legged, deep-bodied bird with brilliant sheen and broad, full front.

Taking the three main characteristics to aim for in the breeding of Black Orpingtons as shortness of leg, colour, and, most important of all, type, we will first speak as to shortness of leg. Occasionally we see birds penned that almost touch the ground, so short are they, and, although we want short-legged birds, this is rather overstretching the mark. Being full-bodied fowls, they must have a certain amount of daylight under them to show off the full effect of their body type. Birds that are as short in leg as we speak of very seldom attain a good size, and an Orpington must have size. The colour should be a brilliant beetle-green sheen, free from purple or bronze, and one of the chief aims in breeding is to get this colour not only on the top, but carried right down the breast into the fluff. At the present time there are very few birds that can show a really good colour throughout. In type they should have a broad, full front, showing an unbroken curve from the beak to the tail. Many birds have a tendency towards being pinched in the breast, and one of the main objects in breeding is to get this perfect curve. The body should be deep through, as it is no use having a broad, full-fronted bird if it has not the depth of body to set it off. The back should be short, with broad shoulders, with the saddle rising in a gentle sweep up to a neat, flowing tail. The saddle itself should be broad, with a full hackle. The comb should be fine, evenly serrated, and free from side sprigs. It should be of medium size, set on a firm base. If too small, it makes the cock look effeminate; but, on the other hand, a comb like a Minorca's tends to lessen the compact appearance of the bird.

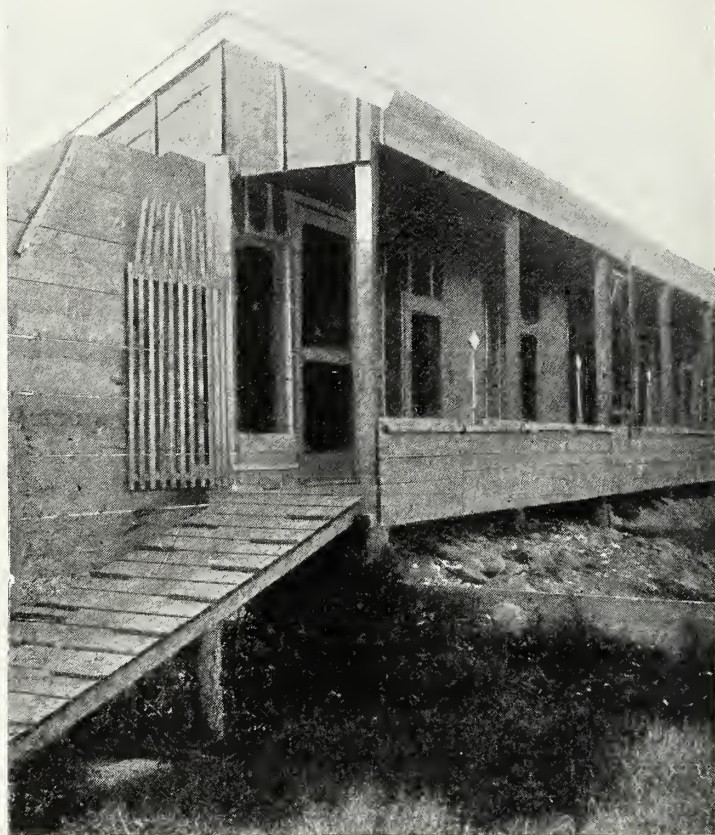
The eye is an important point, and its colour is sometimes the subject of controversy. We have often heard people talking of a jet-black eye but have never seen one yet. However good a bird's eye may be, if held in the light it will show a dark brown iris with black centre. This is what the standard requires.

In the mating of Black Orpingtons we are never particular as to the size of the male. In fact, we would prefer a small bird if he is of really typical shape. The female should be as large as possible, provided she is a fairly good type and other small points are good. In both cases they should have good bone and should stand on short legs, this applying more especially to the male. Never mate two very highly coloured birds together, as by doing so one is liable to get purple barring on the wing, or a bronze colour, either of which goes against a bird in the show-pen.

THE WINTER EGG, AND HOW TO GET IT.

By FRED. W. PARTON.

EGG-PRODUCTION in this country is by far the most important branch of poultry-keeping, since the demand is so enormous. Each year sees it steadily and surely increasing, and the object of every utilitarian should be to obtain a large proportion of the egg yield during the winter months. Much valuable advice every year is disseminated throughout the country, both by means of the Press and from the platform, yet careful study and keen observation in all large agricultural districts which are responsible for the bulk of the British supplies show no diminution in the shortage now that the cold months are here. A few weeks ago I was discussing this question of winter eggs with a farmer, who, roughly speaking, keeps between 400 and 500 head of poultry and yet has very few eggs to dispose of in winter. He comforted himself with the remark that it was not to be expected that he, or, for that matter, any other farmer, could expect to get eggs at a



AMERICAN LAYING QUARTERS. [Copyright.]

Note corridor running entire length of range.

time of year when it was unnatural for birds to lay. This, however, was a very weak argument indeed. While it is perfectly true that in their natural state they would only lay in the spring to reproduce themselves, yet domestication has worked such wonderful changes in the entire nature of poultry that, under the management of man, there is practically no limit to what may be achieved.

That a large percentage of the year's egg yield can be secured when prices are highest we have daily proof. There are men to-day who specialise in this direction; and by taking advantage of every point in their management that tends to this end, they succeed where the more negligent poultry-keeper fails. How do they get eggs in winter? The contributory factors may be divided under four headings: Keep the most suitable breeds, hatch at the right time of year, feed properly, and house and shelter with common sense. Taking these in the order given, it may at once be said that practically any breed, provided that it be hatched at the right time of year, will lay a certain number of eggs in winter. At the same time there are certain breeds that are equipped with natural characteristics that go far to enable them to withstand the severity of winter. Among the breeds so endowed may be mentioned Plymouth Rocks, Wyandottes, Orpingtons, Faverolles, and

ther advantage possessed by these birds is that originally they, or the breeds from which they sprang, were from countries where the climatic conditions were not of the same genial nature as that enjoyed by the non-sitting breeds. Possessing all these necessary qualifications, it will be seen that selection should be made from among these by the man who intends specialising in winter egg-production. Second only in importance to the breed is the time of year to hatch. Too early hatching is equally as bad as too late; and both are very common mistakes. Many people attempt to get their chickens out as early as possible in January. I know more than one person whose ambition it is to have a batch out on New Year's Day. This is all very well for certain specific purposes, but not for the production of winter layers. There are others who carry on their hatching operations up to the end of June. This, for the heavy breeds, is decidedly very bad management. Judgment is



A POPULAR FORM OF AMERICAN LAYING HOUSE.

[Copyright.]

Rhode Island Reds. These breeds are all extremely hardy and will thrive under conditions which would be fatal to success with others. They are very easy to rear, and do not require nearly the same amount of pampering as some of the other breeds. They lay medium-size eggs, which are tinted in colour, while in table qualities they are quite good; the surplus cockerels, chiefly owing to their size, realise excellent prices. They possess small combs and are consequently less liable to frost-bite, which is detrimental for the purpose for which I am now recommending them. These breeds are heavily feathered, which is a further asset towards the same end, since the warmth thus given to the body reserves much of the surplus heat which goes to the making of eggs. A fur-

needed in these matters; no hard-and-fast line can be drawn, since members of the same breeds vary considerably in the rapidity with which they reach the laying stage. Where a large number of breeding hens are kept, it is inadvisable to endeavour to secure all the chickens that are required in one month. The farmer is frequently under the impression that if a certain month is the best one in which to hatch prospective winter layers, then all chickens must make their appearance in this "best" month. This is sound logic; at the same time, a succession of layers is desirable to keep up the winter supply. Speaking broadly, and according to my own experiments, in order to get winter layers, a batch or two of chickens should be hatched

the latter part of February, and continue hatching through March and April. If the right breeds have been chosen, and the chickens have been hatched at the proper time of year, then it may safely be said that the nucleus of a winter supply of eggs is secured. This good start, however, may be neutralised unless the chickens are reared and fed in a proper manner. Whether chickens are reared by hens or brooders, cleanliness is no doubt of first importance, both in their sleeping quarters and in their runs. When the soil is of a cold, damp nature, it is advisable to have a wooden floor to the coops; the work of cleaning them will, however, be greatly facilitated if the floor is not permanently fixed to the coop, so that when the coop is removed the floor may be scrubbed, scraped, or whatever else is required, to remove all impurities. Many chickens are stunted in their growth by living under the insanitary conditions that inevitably follow inattention to these matters. They must not be overcrowded, since this not only fosters many of the common ailments of chickenhood, but may sow the seeds of future trouble.

There are sold many and various mixtures of seeds known as dry foods. They vary very slightly in their composition; in most mixtures are to be found cracked wheat, and maize, coarse oatmeal, canary seed, millet, hempseed, dari, meat meal, groats, linseed, egg-flake, dried insects, rice, &c. The different samples of advertised chicken foods differ principally in the proportion of each of the seeds that the mixture contains. Any of the seeds above-mentioned contain most of the elements that are required for growing birds, and results are so good that the system of dry feeding undoubtedly justifies the popularity of the system among all classes of poultry-keepers. I must, however, say a word in favour of soft food, since I am firmly of opinion that the best results are obtained by a combination of the two, dry and soft. I have found the following dietary to be excellent: for the first three weeks, any, or all of the seeds above-mentioned; commencing the second three weeks by the addition of two meals a day of soft food, which may consist of any of the ordinary chicken meals, oatmeal made with milk into stiff porridge, ground oats mixed with boiled rice. These foods may be used until the birds are old enough to take barley meal and middlings as their morning meal and whole oats or wheat at night. Green foods at all periods of their growth should be abundantly supplied. When the time is approaching for the pullets to commence laying, say, towards the end of October or early in November, food must be of a strengthening nature, not too forcing, but just sufficiently so to bring the ova to maturity without unduly stimulating them.

Having got the birds up to the present stage, the crowning point is good housing and shelter. For months back they may have enjoyed freedom in having the run of permanent pasture, stubble, and meadow-land, but with the first approach of cold weather their houses should be quite near to the farm buildings for warmth and shelter, and use should be made of the shutter in houses that are open-fronted. In addition to their roosting-house, adequate shelter should always be provided, since nothing retards winter laying so much as exposure during cold, wet, and windy weather.

HOW TO PLUCK AND TRUSS A CHICKEN.

IT is of little use expending time and money in the preparation of table-birds if the final processes are neglected, for it should ever be borne in mind that the eye is the inlet to the pocket, just as it is commonly said to be the inlet to the soul. The majority of our readers may not have occasion very frequently to kill and truss a fowl, but, at the same time, a knowledge of how it is done will undoubtedly prove of value to them. When supplying a private trade—and this is a plan to be confidently recommended—a higher price can be obtained if the chickens are delivered all ready for cooking. It is very important that a chicken shall be starved for about twenty-four hours before being killed, for in this manner not only are the texture and flavour of the flesh better, but the keeping qualities are much improved. There should be no food whatever in the crop or intestines when the chicken is killed, and the only way to empty the system is to withhold all food for a day, or during hot weather a day and a half, previous to killing.

For ordinary purposes killing by dislocation of the neck is the better plan, but where something very special is being produced the other method, by knifing, may be recommended. Killing a chicken is not really so disagreeable a task as may appear. Both the above methods are instantaneous and painless. In the former instance, the bird is held in the left hand by the hocks and long-flight feathers, while the head is gripped between the first and second fingers of the right hand, and firmly but gently extended in a downward direction until the neck breaks. Immediately the jerk is felt, pulling should cease, otherwise the head will come away, which is undesirable. No blood whatever is seen when killing in this manner, and plucking can commence at once. When knifing a bird, rather more care and experience are required, besides which it is a somewhat dirty method, the blood flowing from the wound very freely. The bird is laid upon its back on a table and the mouth opened, the point of a knife is inserted into the slit in the roof of the mouth, and by means of a steady press the brain is pierced. The chicken then requires to be hung up by the legs for a few minutes in order that the blood may drain away, and so leave the flesh white and of a good flavour.

Plucking should begin immediately the bird is dead, for the removal of the feathers is much easier while the body is warm, besides which there is less danger of tearing the skin. During the whole time that plucking is proceeding the fowl's head should be hung downwards, in order that the blood may drain away freely. Unless this is done the blood remains in the veins, imparting a disagreeable colour to the flesh. In removing the feathers it should be remembered that while quickness is important, it is much more important not to damage the flesh in any way, since this at once reduces the bird's value very considerably. A long drag should be avoided; the feathers should be given a short, sharp pull in the opposite direction to that in which they are lying. The most delicate parts should be attacked first—*i.e.*, the breast, the back of the wings, and immediately in front of the tail, or the "parson's nose." When chickens are to be sent to market and not to a

private customer, they should be placed in what is termed a shaping board, which consists of two boards seven or eight inches wide, fastened together at an angle of about 60 degrees. The chickens are placed in the trough, breasts downwards, with the necks hanging over the front, and a board is placed on their backs, which is heavily weighted. They remain thus for about twelve hours till they are quite cold.

In supplying a private trade, however, it pays, as we have already indicated, to truss the chickens, for a higher price may be demanded. It is not a very easy matter to describe upon paper the exact method of trussing a fowl, and one actual demonstration is worth more than any amount of theory. If the following instructions are read carefully, however, and are referred to constantly while dressing a bird, the process will soon appear quite

the middle finger inside the Λ -shaped opening as far as possible, and loosen all the internal organs by turning the finger round, taking especial care to loosen the lungs, which lie pressed against the ribs. Turn the bird round, and make a cut between the vent and the tail; insert the finger, pass it round the "trail," which cut off; take hold of the gizzard, and gently draw, when, if the operation has been properly performed, everything comes out together. Scrape the flesh away from the merrythought, under which insert the knife and cut out. A special knife is sold for the purpose of drawing a bird, costing about a shilling.

For the trussing of a fowl a special needle is required, ten or twelve inches long, and excellent ones can be bought for sixpence. The trussing of a fowl is as follows: Lay the bird upon the table, breast upwards, and draw the legs as far



PLUCKING ON A SUSSEX FATTENING ESTABLISHMENT.

[Copyright.]

simple. Lay the bird upon its back on the table, feet away from the operator; trim the wings, cutting away the finger and thumb, and the outer skin, so as to remove all traces of the feather pits. In a young bird make a small slit in the leg, about an inch above the hock, so as to sever the sinews; in an old bird the sinews have to be drawn. Lay the bird breast downwards (the only time it rests upon its breast) with the feet towards the operator, and make a transverse cut in the skin of the neck, about a couple of inches from the back, slowly drawing the skin backwards till a white mark is seen just where the neck and the backbone join, into which the point of the knife is inserted, cutting off the head and neck. Turn the bird round, draw back the skin, and press the thumb in the Λ -shaped orifice, to loosen the heart from the carcass. Remove the crop and windpipe. Place

forward as possible, inserting the needle between the thigh bones, behind the leg joint, and bring it out at the same place the other side. Double back the wings, and pass the needle between the two bones of the first joint and hand, over the back and through the two bones of the hand and first joint at the other side. The two ends of string are thus together, which should be tied as tightly as possible. Pass the needle through the fat in front of the tail, once round the tail, and up over the legs and through the end of the breast-bone. Tie the two ends together as tightly as possible, and cut off the legs about an inch below the hocks. It is a mistake to cut them off at the joint, since in this case, when the bird is cooked, the flesh runs up perhaps an inch or two, thus exposing the leg bone and considerably detracting from the appearance of the bird.

THE POULTRY-KEEPER'S OTHER INTERESTS.

By "HOME COUNTIES."

Author of "The Townsman's Farm," "Poultry Farming: Some Facts and Some Conclusions,"

"The Case for the Goat," "Country Cottages," &c.

"Poultry should be only one part of the stock."

—Hon. Secretary of the N.P.O.S. in the "Cyclopædia of Modern Agriculture."

OLD HENS.

My note on the utilisation of old hens has attracted the attention of several readers. L. B. A., whose initials hide the identity of a well-known engineer, writes that "in order to utilise birds beyond their first youth, the best thing to do is to cook in a Wellbank boilerette, then browning if necessary in the oven. Thus treated they are delicious and almost indistinguishable from young birds." Another correspondent says: "An ancient hen may be very successfully cooked by boiling her for an hour and then putting her in the oven for an hour. It is wonderful how her years fall away from her under this treatment."

BEES AS FRUIT PRODUCERS.

With reference to the usefulness of bees as fruit producers, the case of Lord Sudeley has been stated by Mr. Cowan, whose name is well known in connection with the British Bee-Keepers' Association:

Some years ago Lord Sudeley started fruit orchards at Toddington, and for some time they were quite unproductive; in fact, it was a question of giving them up. It was suggested that bees would be of use, and a Scotch bee-keeper was engaged to take charge of an apiary on the spot. The result was that the fruit trees very soon showed the difference and became remunerative. The trial was so successful that the orchards were enlarged, and a large jam factory was established to preserve the fruit. There were 200 colonies in this case assisting the fruit-grower, which turned an unproductive orchard into a very productive one.

Mr. Cowan also mentions an impressive case in California, where a peach-grower found an advantage from bees the first year. The next year trees, which had been shy bearers, bore so abundantly that the fruit had to be thinned. An unproductive ranch was converted into a productive one.

THE MOST REMUNERATIVE INVESTMENT.

The writer to whom I referred the other month concludes:

There are few fruit-growing districts that are really adequately provided with bees, and capital amounting in the aggregate to many millions of pounds is either unremunerative or only partly remunerative. Instead of being an expense, bees are the most remunerative agricultural investment with which I am acquainted. Under proper management there are few districts in this country where the sale of the bee product alone will not repay the outlay on bees and hives in two or three years.

MILK SHEEP.

I made inquiries when I was over in Holland about the milk sheep that I wrote of the other

month, and heard of many labourers and small farmers keeping one. The yield is substantial, and the animal is much more amenable than a goat.

AN EXTRA ROOM.

I have more than once, I think, mentioned cycle camping as an inexpensive recreation which poultry-keepers, most of whom live in the country, might go in for more than they do. Poultry-keepers whose cottages are not too commodious, and who are hard put to it to find accommodation for the visitors who sometimes arrive unexpectedly, would be well advised to give a little attention to the art of inexpensive tenting out. Of course, for a permanent tent there is something to be said for an old Army tent. Such a thing is cheap and strong. It is often, however, very stuffy. The particulars of the cottage tent of the Amateur Camping Club, with full equipment, are as follows:

						ft.	ins.
Length	...	...	...	...	...	6	6
Width	...	...	...	...	...	6	6
Height to ridge	...	...	...	...	...	5	0
Walls	...	...	...	...	...	2	9

					Price.	Weight.
					s. d.	lbs. ozs.
Tent, in lawn	...	...	...	...	25 0	3 8
Flysheet, in lawn	...	...	...	...	15 0	2 3
Poles and Case	...	...	...	...	8 6	2 10
Rubber Ground Sheet	...	...	...	...	17 6	1 9
Paint-proofed	...	...	...	...	9 0	1 10
Cashmere Ground Blanket	...	...	...	...	8 0	0 15
Aluminium pegs, for tent...	...	...	...	...	4 2	0 12
" " for fly	...	...	...	...	2 1	0 6
Magnalium pegs for tent	...	...	...	...	5 5	0 12
" " for fly	...	...	...	...	2 8	0 6

This tent will hold three persons at a pinch. A smaller make will hold two. There is a variety of other makes of tents sold by the Club. The low weights of the tent and equipment are amazing. are they not?

THE PROBLEM OF HEAT.

In the summertime some poultry-keepers are worried by the problem of getting heat to cook their poultry food. The kitchen fire is allowed to go out; paraffin stoves smoke unless carefully turned up, and kept perfectly clean and out of draughts. The best thing to meet the situation is the Swedish "primus" stove. It yields a tremendous heat and is clean because it vapourises its paraffin before burning it. The cost is less than half a sovereign, and the thing is most economical in working. This make of stove, being used by campers and explorers, has been well tried and is an investment that will not be repented of.

WINTER VIOLETS.

By "HILL AND DALE."

A PROFITABLE minor industry for the poultry-farmer or small-holder who has sufficient time to devote to it—without having to call in extra hired labour, which will not pay in this case except where operations are on a large scale—is the growing in cool greenhouses of violets for the late autumn and winter trade. Much has been heard lately of growing violets in frames for this purpose, but it is exceedingly doubtful whether this is sufficiently profitable in the majority of cases to be worth the trouble and expense involved. The whole secret of a really profitable return (as in so many other classes of out-of-season produce) is not only to produce a sufficient supply at a time when the naturally-grown flowers are quite unobtainable, but, as far as possible, to aim at being ahead of other competitors in the same branch.

The most profitable season for violets coincides with the first half of the hunting season. From the beginning of November until Christmas, and for a short while afterwards, there is a big demand and a very limited and inadequate supply. The best customers will generally be found in and around the South Coast winter resorts, especially Brighton, Eastbourne, and Worthing, local nurserymen who supply these towns being quite unable to grow sufficient for local requirements. To a limited extent Covent Garden may also be looked to as an outlet for the flowers, but here there is considerable foreign competition to be encountered, which tends to make the prices obtained less certain than in the districts already mentioned. In addition to this, there is a constant demand for violets for buttonholes in all the fashionable hunting centres, and it need only be known that a local grower intends to grow violets for him to be besieged with orders. This was the experience of the writer of this article in two well-known, but widely-separated, hunting neighbourhoods. Again, violets for indoor house decoration, whether as cut blooms or growing in pots, are always in request, as these flowers are universal favourites, and last well in water. One nurseryman known to the writer did a most profitable retail business in supplying boxes of freshly-cut violets to private customers in the neighbourhood, in addition to supplying the wholesale buyers; in fact, these latter had often to go away disappointed when the private demand was unusually heavy, although it is always well to ensure, as far as possible, a fairly constant supply to the wholesale buyer, even though it be a limited quantity.

But too much emphasis cannot be laid on the absolute necessity of having a constant succession of blooms from early November onwards, and it is here that the system of growing in frames usually fails; a big total quantity of blooms can certainly be obtained in this manner, but then they are not produced early enough in the season, nor is the supply certain. Violets are by no means exacting in their requirements, and are quite easy to grow, if proper care, and a large measure of common sense, be expended on them. They will not stand "forcing" in the ordinary sense, and artificial heating must never be resorted to with this end in view, only just sufficient heat to exclude frost being required. But plentiful ventilation is most im-

portant, and air and sunlight should be freely admitted at all times when there is no danger from frost. Damp is most injurious to violets, and must be guarded against. An inexpensive, simple type of greenhouse, either span-roof or lean-to (not too high, else space is wasted), such as is used for growing tomatoes in is most suitable. It may have a bed down each side, and, if wide enough, one in the middle, shelves being placed over them for pot culture. It may be noted, in passing, that violets and tomatoes make excellent alternating tenants of the greenhouse, each being cleared away in time for the other to follow on. The violets for winter blooming are transferred from the open ground in September, and planted into the beds in the house, or into pots, which can be placed on shelves over the former, so utilising to the fullest extent the capacity of the house. Violets succeed equally well grown in either fashion, but an advantage of the pots is that the flowering plants can be taken without disturbance into the house for indoor decoration, being readily saleable in this form to customers as "pot plants," but they should not be kept in a dwelling-room where the temperature may fall in the night below freezing point, nor placed too near an open window.

The profits to be obtained from violets may be estimated on a basis of 2s. per dozen bunches, each bunch containing twelve blooms, from November until a week or two after Christmas, this being the wholesale price obtained by growers supplying the South Coast towns already mentioned. Even larger prices are secured just at Christmas, and, of course, retail prices to private customers will be higher yet. In other parts of England the prices are not quite so good, and it would probably pay a grower in those districts to arrange with a South Country florist to take his output, as the cost of postage is not prohibitive for this class of produce, and the better price obtained would warrant the expense. But the violets must be very well packed for safe travelling, whether they are being consigned to wholesale or retail customers, as perfect condition and quality are all-essential points if a good price and repeat orders are expected. Cardboard boxes should not be used, as they are liable to damage in the post; tin boxes, although ideal for purposes of protection, are too heavy for profitable use, unless a large quantity is being consigned by train. The best box for general purposes is made of very light thin wood, and can be obtained from dealers in nurserymen's sundries or from the dairy outfit companies, and is very inexpensive and satisfactory. The bottom should be lightly covered with cotton-wool, on which a piece of tissue paper has been laid, and the bunches of flowers (twelve to each bunch) placed on this in layers, heads and stalks alternately; another piece of tissue paper and a layer of cotton-wool at the top of all under the lid affords ample protection. Flowers should always be packed firmly into a box to avoid shaking about, and they should never be loose, as otherwise many stalks will be broken. Some growers who cater for private customers use violet-covered wrapping-paper with an attractive label, and there is no doubt but that attention to such small details of appearance pays. Every effort should be made to work up a private connection with hunting people, and a few such customers, either obtained direct from personal acquaintance, through advertising, or through local

tradesmen who are supplying other goods, will very soon make a successful violet-grower widely known. In fact, he will be lucky if he can supply all the demands made upon his stock.

Considerations of space forbid detailed cultural directions, which can, however, be easily obtained from any of the numerous excellent books on gardening. Two especially good ones, dealing fully with this subject, are "Pansies, Violas, and Violets" in the *Farm and Garden* series of handbooks (published at the offices of that paper), and "Pansies, Violas, and Violets" in the "Present-Day Gardening" series (Messrs. Jack, 1s. 6d. net each). Both these books are entirely reliable and practical, and are written in non-technical language. A few weeks with a successful violet-grower would, of course, be time very well spent; failing this, the grower must be content to start cautiously in a small way at first, until he has mastered the practical details and picked up all the hints he can.

But a few words on some of the most suitable varieties for growing under glass will be of interest. In the first place, long stalks to the flowers are absolutely essential, therefore the low-growing kinds should be avoided. Strong plants that will flower freely should alone be selected, as it is a waste of time and trouble, and of still more valuable space, to try and get results from weak or undeveloped plants. One of the best varieties for cultivation under glass is Marie Louise, mauve-blue with a white eye, one of the most popular of the double varieties. The big single La France, a violet-blue, is another good kind; this variety, together with the large-flowered purple single violet, Princess of Wales, makes especially good hunting buttonholes. The best white violet is the double Comte de Brazza (or Swanley White), but this variety does not succeed well in all districts, and should be tried cautiously at first. The lovely Parma Violet, a pale lavender double, is particularly suitable for the winter trade, it is earlier than the Neapolitan, which it somewhat resembles. Both are good violets for greenhouse cultivation, but probably Marie Louise is the best choice among all the double varieties; La France and Princess of Wales among the singles. It is a mistake to grow too many kinds at once, but, of course, the most suitable varieties for each individual grower can only be decided on by practical experiment.

POULTRY AND EGG RECIPES.

RE-DRESSING A TURKEY.

THE majority of housewives know perfectly well how to roast or boil a turkey, but they are sometimes rather at a loss what to do with the remains of the bird so as to serve them up to the best advantage. We hope, therefore, that the following examples may prove useful:

BLANQUETTE OF TURKEY.

Cut the meat into small, neat slices, season lightly with salt, pepper, mace, and lemon juice, and cover over in a cool place until required. Put the bones and all odd trimmings into a saucepan with a tablespoonful of minced onion, a bunch of savoury herbs (some of which should be found in every well-stocked store cupboard), the fresh rind of half a lemon, a seasoning of salt and pepper, and a quart of cold water. Simmer gently for about half an hour, then strain off the liquid into a smaller saucepan, add a tablespoonful of finely-chopped parsley, the yolks of two fresh eggs stirred into two tablespoonfuls of milk or cream, and the slices of turkey, and stir very gently until the sauce thickens sufficiently, being careful not to let it reach boiling point, then serve the blanquette on a very hot dish garnished round about with neat finger pieces of toasted or fried bread.

FRICASSEE OF TURKEY.

Prepare the meat as directed above and make it hot in a little good white stock, then drain the pieces well and put them into a stewpan with just sufficient rich, thick, white sauce to moisten them nicely, then add half a pound of carefully prepared button mushrooms, two ounces of lean ham or bacon cut up into tiny dice, and stir together gently until the whole is quite hot. Have ready a hot dish on which has been arranged a border of carefully boiled, well seasoned rice, and in the centre of this pile up the fricassee; garnish the edge of the dish with slices of fresh lemon and sprigs of parsley, and serve very hot.

TURKEY RISsoles.

Put half a pound of finely minced turkey into a bowl with four ounces of cooked lean ham, also finely minced, four ounces of grated breadcrumbs,

FOLLOWING EXPERT ADVICE.

I am trying to raise chickens
Of the Plymouth Rock breed,
I take a poultry journal,
And some conflicting advice I read:
"Feed your hens a good wet mash,"
Some great expert will say;
"Don't do it," says another,
"Feed dry, 'tis Nature's way."

"Keep hens in warm houses;
Summer conditions must be met.
Keep hens in cold houses,
For fresh air they must get.
Don't feed maize in the summer time,
It produces too much heat.
Feed maize in the summer time,
It's much better than wheat."

"Hens should not be bred to lay—
Great egg-production is wrong, I fear;
Hens should be bred to lay
To produce two hundred eggs per year.
Feed a carefully 'balanced ration'
To make hens do their best.
That a 'balanced ration' is all 'bosh'
Has been proved by many a test."

I read a lot of "Do's" and "Don't's"
I've experimented so much on my hens
That they will not eat, or will not lay,
But just dope 'round in their pens.
If I keep on taking each expert's advice,
As sure as I am born,
I'd have to sell off all my hens
And go to raising corn.

—(Farm Poultry, U.S.A.)

two ounces of fresh butter slightly melted, and a seasoning to taste of salt, pepper, and grated nutmeg; mix these ingredients thoroughly, moisten with beaten egg, and form into small round balls; press these well in the hands until they are quite firm, then enclose each ball between two rounds of moderately rich pastry rolled out thin; wet the edges with cold water and press them firmly together, then dip the rissoles in beaten egg, and fry in hot fat until well browned, after which drain thoroughly on blotting, or kitchen paper, pile up lightly on a dish paper, garnish with sprigs of hot fried parsley, and serve as quickly and as hot as possible.

POTTED TURKEY.

Cut off the flesh from the remains of a cold cooked turkey, and after carefully removing all skin, gristle, and sinew, put it into a bowl and mince it very finely, then pound it to a perfectly smooth paste, adding meanwhile some finely minced ham or tongue, seasonings to taste, and a pat of fresh butter. When the ingredients are well blended press the paste into small, thoroughly dry jars, cover it with clarified butter about a quarter of an inch thick, and when the latter is quite firm, turn the jars upside-down and store in a cool, dry place until required. This forms a most appetising breakfast relish, and also makes very delicious sandwiches.

TURKEY SOUP.

When the best of the meat has been used for the making of the above dishes, an excellent soup may be made from the bones and odd trimmings of the turkey. Put these into a saucepan with a large onion, a few sticks of celery, and a large carrot, all properly prepared and cut up into pieces, a bunch of savoury herbs, and two quarts of white stock, or water, and simmer gently until the bones are quite clean, then strain off the liquid into another saucepan. Add a mixture of vegetables previously cooked and cut up into small, neat shapes, add a thickening of arrowroot, or ground rice, mixed to a smooth paste with a little water, and bring to the boil. Serve very hot accompanied by toasted or fried dice neatly arranged on a hot dish covered with a dish paper. If a thin soup is preferred the thickening must be omitted, and if a still more dainty soup is required add some lean-cooked ham cut up into Julienne shreds, hard-boiled eggs cut into quarters, and very small forcemeat balls, which have been fried a nice crisp brown and well drained.

THE BEST TIME TO START.

"WILL it be better for me to start poultry-keeping by buying pullets in the autumn, or with sittings of eggs in the spring?" This is a very common question, and one that opens out quite as large a field for discussion as "What is the best breed to keep?" If one were to answer the first question with the brief answer, "Pullets in the autumn," or to answer in favour of eggs in the spring, each would be equally useful to certain persons asking for the information, since the answer depends entirely upon several circumstances. What, of course, should be the determining factor is the time of year when the inquiry is made, as probably it is better to start either way than to wait six months and start at the period

that is furthest off. It is well for the beginner to get everything in readiness before an actual start is made. If the operations are to commence by purchasing stock, buy pullets; if of the heavy breeds, endeavour should be made to secure those that were hatched in March. If, however, it is the prospective poultry-keeper's intention to make his choice from the non-sitting breeds, pullets hatched six or seven weeks later may be purchased. A commencement on these lines is usually very satisfactory, since results may be looked for immediately. In due course a male bird is obtained, and breeding goes on forthwith, and one pen, consisting of six or eight pullets and a cock, will breed a sufficiently large number of chickens to stock a fairly extensive establishment. For the beginner, whose intention it is to enter the ranks of the Fancy, it is absolutely necessary to get his chickens hatched as early as possible. This is equally important for the person whose ultimate object is to supply the early markets with spring chickens. It may be thought that these are very ambitious schemes for the beginner, yet many set forth with these ideals, and for the achievement of either early hatching is imperative. Probably one of the chief recommendations for starting with pullets is that results are not only immediate, but can be relied upon with a much greater degree of certainty. The initial expenditure is, of course, greater than starting with sittings of eggs, since a breeder having reared his pullets up to laying age, and frequently through a very trying season, naturally will not dispose of them under what, to the inexperienced, seems a high figure. At the same time, we very much doubt whether purchasing pullets really is the dearer method. Many beginners, however, have the idea that pullets may be bought in the autumn at something below eating price. Such ideas should at once be dissipated, and it should be understood that the two shilling and sixpenny March-hatched pure-bred pullets are not to be had. The beginner is very often led astray by advertisements from some spurious breeder, with whose many adjectives we are so familiar—"The most beautiful, prolific, and perfect, pure-bred pullets, all in full lay, eighteen shillings per dozen, or three dozen lots for two pounds eight shillings." Advertisements similar to this are frequently to be seen. They should be treated with absolute contempt.

When the plunge into poultry-keeping is made by means of sittings of eggs, it is a long time before any results are apparent, and the purchase of eggs for hatching purposes is seldom really satisfactory. If a beginning is attempted early in the year, 50 per cent. of infertile eggs is by no means an uncommon occurrence, and the percentage of chickens hatched from the fertile eggs is very often disappointing, and, still further, the majority of those reared may be cockerels. Another attempt may have to be made by securing more eggs, and thus the start be considerably delayed. Suppose all goes satisfactorily so far as hatching results are concerned, and a sufficient number is obtained for a start, it must be remembered that the amateur is more liable to make mistakes in the rearing of chickens than he is in the management of pullets that have reached the laying stage. It will thus be seen that, all things considered, there are probably greater possibilities of success when a commencement is made by purchasing pullets.

BIBLIOGRAPHY OF POULTRY.

COMPILED BY EDWARD BROWN, F.L.S.

Compiler's Note.—With the object of securing as complete a list as possible of Poultry Books, it is proposed to give from time to time particulars as to such as are known. My own library embraces nearly 350 volumes on this subject, but there must be many not contained therein. I beg respectfully to request the kindly co-operation of owners of books not named, with a view to making the list exhaustive. In sending particulars I request that the following be stated: (1) Full title, and sub-title, if any; (2) Author's complete name, with any information respecting the writer; (3) Place of publication and name of publisher; (4) Date of publication, if given; (5) Number of edition; (6) Number of pages and size of book; (7) If illustrated; and (8) Whether in paper or cloth. Acknowledgment will be made of source of information. The books marked with an asterisk I have not been able to verify, and fuller details will be welcome both as to books and authors.

LIST No. 12 (Continued from page 46, October, 1910).

WORKS PUBLISHED SUBSEQUENT TO 1850.

Various and Unnamed Writers (continued).

THE WYANDOTTE FOWL. Its General Characteristics, and Advice on Rearing, Mating, and Breeding, with a Chapter on Judging of Exhibition Birds, by the Editors of the *Poultry Monthly*. Albany, N.Y., U.S.A.: Ferris Publishing Co., 50 pp., illustrated, paper cover. 1884. 12mo.

Valentine, C. S.

HOW TO KEEP HENS FOR PROFIT. New York: Macmillan Co., 298 pp., illustrated. 1910. 12mo.

Weston, Sir Wm.

***WESTON'S TRACTS.** Contains much on Poultry, including the Fattening of Turkeys by use of Walnuts. London: 400 pp. 1773.

Verrey, Louis C. (Past President of the Poultry Club; late Hon. Sec. of the Leghorn, Andalusian, and Plymouth Rock Club).

THE ANDALUSIAN FOWL. London: *Fanciers' Gazette*, 46 pp., illustrated, paper cover. 1889. 8vo.
Second Edition. 1898. 8vo.

FRENCH BREEDS OF POULTRY. London: *Fanciers' Gazette*, 71 pp., illustrated, paper cover. 1891. 8vo.

THE LEGHORN FOWL. London: Vinton and Co., Limited, 57 pp., illustrated, paper cover. 1887. 8vo.

Second Edition, Revised and Enlarged. London: *Fanciers' Gazette*, 63 pp., illustrated, paper cover. Undated. 8vo.

Third Edition, 78 pp. 1893. 8vo.

PLYMOUTH ROCKS. London: *Poultry Office*, 56 pp., illustrated, paper cover. 1903. 16mo.

Voitellier, Ch.

L'INCUBATION ARTIFICIELLE ET LA BASSE-COUR: TRAITE COMPLET D'ÉLEVAGE PRATIQUE. Paris: Firmin-Didot et Cie., 314 pp., illustrated, paper cover. 1878. 16mo.

Fourth Edition. 1886. 16mo.

Eleventh Edition. 1894. 16mo.

Revised Edition. Paris: J. B. Ballière et Fils, 486 pp., illustrated, paper cover. 1909. 16mo.

*Von Culin, E. and C.****ART OF INCUBATION AND BROODING.**

A Guide to Profitable Poultry-Raising. Delaware City, U.S.A.: The Author, 170 pp., illustrated. 1894. 12mo.

V. W. H.

HOW TO RAISE POULTRY ON A LARGE SCALE. Hartford, Conn., U.S.A.: H. H. Stoddart, 64 pp., illustrated, paper cover. 1884. 12mo.

Wallace, Joseph.

BARRED AND WHITE PLYMOUTH ROCKS. Their History, Characteristics, and Standard Points; How to Mate and Rear Them for Exhibition and Commercial Purposes. Albany, N.Y., U.S.A.: Ferris Publishing Co., 57 pp., illustrated, paper cover. 1883. 8vo.

English Edition. Edited and Revised by one of the Oldest Breeders in England. London: *Fanciers' Gazette*, 46 pp., illustrated, paper cover. 1889. 8vo.

Ward, C. J.

THE POULTERER'S GUIDE FOR TREATING DISEASES OF POULTRY. Chicago, Ill., U.S.A.: American Poultry Journal, 44 pp. 1884. 32mo.

Warren B., H., M.D. (Zoologist Pennsylvania Department of Agriculture; see Pearson, Leonard, B.S., V.M.D.).*Warren, Edgar.*

200 EGGS A YEAR PER HEN: HOW TO GET THEM. A Practical Treatise on Egg-Making and its Conditions and Profit in Poultry. Syracuse, N.Y., U.S.A.: Sixth Edition, 96 pp., illustrated, paper cover. 1906. 8vo.

Watson, G. C., B. Agr., M.S. (Professor of Agriculture Pennsylvania State College).

FARM POULTRY. A Popular Sketch of Domestic Fowls for the Farmer and Amateur. New York: Macmillan Co., 341 pp., illustrated. 1901. 12mo.

Fifth Edition. 1906. 12mo.

FOWLS: CARE AND FEEDING. Farmers' Bulletin, No. 41. Washington, D.C.: U.S. Department of Agriculture. 23 pp., illustrated paper. 1904. 8vo.

Watts, Elizabeth (Editor of the *Poultry Chronicle*).

THE POULTRY YARD. Comprising the Management of Fowls for Use and Exhibition. London: G. Routledge and Sons. 172 pp., illustrated by Harrison Weir. Undated. 16mo.

[A Revised Edition of Martin's book (see Martin, W. C.) in which his name is omitted.]
 ----- New Edition. limp cloth. 1856. 16mo.

----- A New Edition. Revised by Edward Brown, F.L.S. London: G. Routledge and Sons. 155 pp., illustrated, paper boards. 1893. 12mo.

Weber Bros.

HOW WE MAKE DUCKS PAY. Actual, Successful Experience, not Doubtful Theory. An Illustrated Guide to the Profitable Breeding of Our Modern All-White Mammoth Ducklings. Boston, Mass., U.S.A.: American Duck Co., 121 pp., illustrated. 1906. 8vo.

Webster, Richard W.

ALL ABOUT BLACK MINORCAS. How to Manage, Breed, and Exhibit Them. London: *Poultry*, 44 pp., illustrated, paper cover. Undated. 12mo.

THE PRACTICAL MANAGEMENT OF POULTRY WITH A VIEW TO PROFIT. London: Simpkin, Marshall, and Co., 146 pp., illustrated. 1899. 12mo.

Weir, Harrison, F.R.H.S. (well-known bird artist, breeder, judge, and writer; died 1906).

OUR POULTRY AND ALL ABOUT THEM. London: Hutchinson and Co., 818 pp., in 2 vols., coloured plates. 1905. 4to.

Wellcome, F. O.

THE TRAP-NEST BOOK. Yarmouth, Me., U.S.A.: The Author, 56 pp., paper cover. 1906. 8vo.

Whitfield, G. T. (Hon. Sec. of the Indian Game Club).

THE INDIAN GAME-FOWL. London: *Fanciers' Gazette*, 38 pp., illustrated, paper cover. 1892. 8vo.

Willis-Harris, Wm.

THE TURKEY: HOW TO BREED AND REAR SUCCESSFULLY. Warnham, Sussex: The Author, 61 pp., paper cover. 1890. 16mo.

Wilson, F. E.

POULTRY-KEEPING AND HOW TO MAKE IT PAY. London: C. Arthur Pearson, Ltd., 126 pp., paper boards. Undated. 12mo.

Wilson, Mrs. M. A.

THE A.B.C. POULTRY BOOK. London: Cassell, Petter, and Galpin, 109 pp., paper cover. (?) 1882. 16mo.

[Consists of paragraphs in Alphabetical Order.]

Wilson-Wilson, T. and M.

FROM FAILURE TO SUCCESS WITH CHICKENS. Kendal: Thompson Bros., 40 pp., paper cover. Undated. 12mo.

Wingfield and Johnson (Rev. W. Wingfield, Hon. Sec. of the Cornwall Poultry Society; died 1909. G. W. Johnson, Hon. Sec. of the Winchester Society for the Improvement of Poultry; see Tegetmeier, W.B.).

THE POULTRY BOOK. Comprising the Characteristics, Management, Breeding, and Medical Treatment of Poultry; being the Results of Personal Observation and the Practice of the Best Breeders. London: W. S. Orr and Co., 324 pp., coloured plates by Harrison Weir. 1853. 4to.

----- New Edition, Rearranged and Edited by W. B. Tegetmeier. 1856. 4to.

Wood, Richard H., M.D.

INCUBATION AND INCUBATORS. Farmers' Bulletin, No. 236. Washington, D.C.: U.S. Department of Agriculture, 31 pp., illustrated, paper. 1905. 8vo.

Woodehouse, P. G.

LOVE AMONG THE CHICKENS. A Story of the Haps and Mishaps on an English Chicken Farm. New York: Circle Publishing Co., 350 pp., illustrated. 1909. 12mo.

[Much of love, but contains the by no means uncommon experience of would-be and novice poultry-farmers.]

Wright, Lewis (Contributor to *Journal of Horticulture* for several years; first editor of the *Fanciers' Gazette*, afterwards the *Live Stock Journal*; accidentally killed 1905).

THE BRAHMA FOWL. A Monograph. London: Cassell, Petter, and Galpin, illustrated.

1870. 8vo.

----- Second Edition. 1871. 8vo.

----- Third and Revised Edition, 144 pp., coloured plates by Ludlow. 1873. 8vo.

THE ILLUSTRATED BOOK OF POULTRY. With Practical Schedules for Judging. Constructed from Actual Analysis of the Best Modern Decisions. London: Cassell, Petter, and Galpin, 591 pp., coloured plates by J. W. Ludlow. 1874. 4to.

----- Popular Edition, black and white plates by Ludlow. 1885. 4to.

THE NEW BOOK OF POULTRY. And the Poultry Club Standard of Perfection for the Various Breeds. London: Cassell and Co., Ltd., 600 pp., coloured plates by Ludlow. 1902. 4to.

THE PRACTICAL POULTRY-KEEPER. A Complete and Standard Guide to the Management of Poultry. London: Cassell, Petter, and Galpin. 243 pp., illustrated. 1867. 12mo.

----- Fourth Edition. 1870. 12mo.

----- Twentieth Edition. Revised and Enlarged, 247 pp., coloured plates by Ludlow. 1885. 12mo.

*----- American Edition. New York: Orange Judd Co. 1884.

Young, Thos. H.

POULTRY FOR PROFIT. Economical Poultry-keeping in Australia for the Poultry-Farmer, the Orchardist, the Small Producer, or the Housewife. Melbourne, Vic.: Stillwell and Co., 168 pp., illustrated, paper boards. 1899. 12mo.

Zayas Enriquez, R. de.

***AVICULTURA PRACTICA.** Apuntes Sobre el Origen de las Aves de Corral. Descripcion de las Principales Razas y Variedades. Mexico: Secretaria de Fomento. 140 pp., illustrated. 1897.

CURVED BREAST-BONES IN FANCY FOWLS

To the Editor of the ILLUSTRATED POULTRY RECORD.

SIR,—A very serious defect in fowls of the exhibition or fancy type is the curved or crooked breast-bone, which nowadays is so often met with. Yet this defect is frequently overlooked by judges, who are too indolent to perform their duties thoroughly, and who prefer to select the winners without taking the birds from their pens. The result of this desultory method of judging is that many birds which ought by right to be disqualified for so serious a defect as a badly curved keel are placed as winners. It is to be feared that most of our judges place mere excellence of feathering before all other considerations, and this is regrettable, because shape is really of more importance than plumage, and ought to receive at least as much consideration. The two industries—utility poultry-breeding and fancy poultry—are inseparably bound up with one another, and each depends for its welfare, and indeed for its very existence, upon the other. Were it not for the breeders of fancy poultry, the utility side of the industry would to-day hold a much lower place in the economy of the farm than it occupies. We should certainly have none of those newer breeds, like the Orpington, the Wyandotte, and the Plymouth Rock, which have done so much to place farm poultry on an absolutely unassailable pinnacle, and there is every reason to believe that were it not for the good offices of the fancier, all our older breeds would have become hopelessly mongrelised, and rendered worthless through inbreeding without thought or discrimination. And what has the utility poultryman done for the fancier? He has helped him in the most practical manner possible, by taking off his hands at a high price all those surplus cockerels and pullets for which the fancier has no use, the birds which are defective in shape or plumage from a fancier's point of view, but which are quite suitable for breeding excellent farm poultry. Thus it will be seen how each side of the industry helps the other, and how necessary it is that the fancier should be a practical business man and not a dreamer of dreams. I would go so far as to say that birds in the show-pen should be disqualified for any defect that is so serious as to interfere with the birds' usefulness for utility purposes. If this were done we should certainly have fewer curved breasts amongst poultry of all classes, for there are few defects which detract so much from the value of table-poultry as a crooked breast-bone. Defective breast-bones are generally attributed to one or other causes—namely, too early roosting and roosting on narrow perches—but experiments which have been made by the writer and others go to show that curved keels owe their origin to more remote causes, oftener than to those just mentioned. It is natural for a chicken to roost on a perch which raises it off the ground, after it has attained the age of six or eight weeks, or, perhaps, ten, if it is of a slothful breed, and it will certainly suffer no evil effects from roosting when it feels inclined to do so, provided that it has no inherited weakness or tendency to curved keel, and that it has been properly nourished since the time of leaving the shell. This then brings us to the two main causes of curved or crooked

keels, and these are: (1) Hereditary weakness and (2) Innutrition of the chick, at some period between its leaving the shell and reaching the age at which chickens naturally roost on perches. The defect is preventable, although incurable, and in order to ensure that the chickens we raise shall not be defective in this respect, we must look first to the stock birds. When these come from the yards of a fancier they are often delicate through inbreeding, and they should be carefully examined to see that their breasts are straight. When crooked breast is present in breeding stock which have themselves been too closely bred, it will almost invariably be transmitted to their offspring. Consequently, the first step towards prevention is to breed always from robust stock, having no traces of delicacy and possessed of the kind of breasts which it is desired to reproduce in the offspring. Chickens from such a pen will come into the world healthy and vigorous, with no inherited defects, and it then rests with their owner to raise them to maturity as creditable representatives of their species. The bones of chickens, like those of all young animals, are soft and pliable at birth, but they solidify gradually, and when the chicks are ready for roosting the bones should be sufficiently hardened to withstand the pressure of the perches. Should the bones remain soft longer than the usual period required for them to become firm, this is evidence that there has been defective management somewhere, the food has been innutritious, enough bone-making material has not been supplied, the chicks have been too closely penned and have suffered for want of exercise, the pens have been badly kept and the air has been foul, the birds have been infested with vermin, or something that ought to have been guarded against by the intelligent poultry-keeper has occurred to prevent the growth of the chicks in a healthy and uniform manner.—Yours, &c.,

H. DE COURCY.

Johnstown, Co. Kilkenny, Ireland.

REVIEW.

LANDLORD AND TENANT: THEIR RIGHTS AND DUTIES.
By Albert E. Hogan, LL.D., B.A. Macdonald and Evans,
1s. 6d. net.

THIS is a companion volume to that on making a will, and is, if possible, a still more desirable one to purchase and thoroughly master. In the case of letting and renting houses and land, although solicitors are usually employed, unless the transaction is a comparatively small one, it is yet most essential that the proper drafting of leases, the intricacies of sub-letting, licensing, and assigning; the equitable adjustment of the burden of rates and taxes, assessments, &c.; covenants as to repairs; the liabilities of landlord and tenant in the case of fire, flood, or tempest; the legal position of sub-lessees, licensees, lodgers, &c.; should be clearly understood by all parties concerned. Mr. Hogan gives a lucid explanation of all these points, with a word of caution as to the limitations to the power of an agent to grant a lease. In the case of agricultural holdings, the rights and duties, and the respective liabilities, of landlord and tenant are of especial interest to readers of this journal.

NOTES FROM ABROAD.

Turkey Fair.

The annual Turkey Show and Fair at Ronquière, Belgium, described in the *POULTRY RECORD* in 1908 by M. Louis Vander-Snickt, has this year been a great success, and evidently is stimulating the production of these birds in that district, as well as popularising the turkey in the country as an article of food.

New Zealand Poultry Conference.

The successful conference at Adelaide is inspiring New Zealand poultrymen to emulation, though this is by no means a new idea with them. Proposals are now being made for holding a similar gathering in New Zealand.

Profits in Australia.

Mr. F. A. W. Gisborne, writing in *Chambers' Journal*, gives a very roseate account of the possibilities of what he calls poultry-farming in Australia, in which he counteracts the lugubrious communication published in the same quarter a few months ago. He says:

I can assure English readers that in Australia, at least, poultry-farming properly conducted will pay, and pay well. But, as in all other occupations, a certain amount of knowledge, industry, and close attention to details is required to win success. Where possible, the orchard should be an adjunct to the poultry-farm, for the refuse of the latter increases the productiveness of the former, and hens are indefatigable destroyers of insect pests of all kinds.

Day-Old Chick Trade in America.

This branch of the poultry business was slow to catch hold in America, but within the last four or five years it has grown enormously, and, as usual in America, it is handled on a huge scale. Professor James Dryden estimates, in the *American Poultry World*, that in the Petaluma section of California during last season considerably over a million chicks were hatched in the special hatcheries within that district, these having capacities ranging from 10,000 to 60,000 eggs.

"Profitable Poultry."

Announcement is made of a new monthly under the above title, edited by our old friend Mr. A. F. Hunter, to whom we wish every success. The address given is: Profitable Poultry Publishing Co., 287, Atlantic Avenue, Boston, U.S.A.

The Wagga Experiment Farm.

On this farm, maintained by the New South Wales Government, is a poultry section, under charge of Mr. A. L. Wyndham, who lectures to the students, numbering during the present season fifty-three. The course extends over two years, and a considerable amount of attention is given to practical work. Fowls and turkeys thrive exceedingly well, but ducks have not proved suitable to the dry climate and hard soil. The breeds kept are White and Silver Wyandottes, White Leghorns, and Black Orpingtons.

POULTRY-FARMING IN NEW ZEALAND.

A GENERAL SURVEY.

By JAMES SINCLAIR.

NEW ZEALAND, with its ideal climate, is one of the best countries in the world for poultry-keeping. The character of its soils and the regularity of its rainfall give great natural advantages in the growth of vegetable and insect life by which the fowls benefit, and which lessens the cost of feeding considerably.

The poultry industry also receives valuable assistance from the Government of the country and the splendid Laying Competitions held there; also from the Poultry Press. New Zealand is about the size of England and Scotland, with a total population of barely one million people. The census return of the number of breeding poultry on hand in 1907 was 3,191,604, and it is estimated that the average consumption of eggs is 212 per head of the population, thus showing that the poultry industry in this Colony is by no means a small one.

The New Zealand Department of Agriculture have a poultry division with head offices at Wellington, and four large poultry experimental farms at Ruakura, near Auckland, Monmahaki, near Wellington, Burnahm, near Christchurch, and Milton, near Dunedin; also grading depots, with suitable buildings for the preparation of poultry and eggs for export, at these large cities, with a staff of expert managers, clerks, graders, and packers under the superintendence of Professor Brown, the Chief Poultry Expert.

The experimental farms receive students for the poultry course, and instruct them free of charge in every department of practical poultry-keeping.

The farms are all fitted up with the latest and most up-to-date labour-saving devices for practical poultry-keeping, each incubator-house having almost every known make of machine. Various types of laying and brooding-houses are used, and experimental work in scientific breeding, feeding, and rearing, to get progressive results, is continually going on. The students consequently gain a first-class practical training.

The Government periodically issue to the farming community bulletins on the results obtained at these experimental farms, and Professor Brown and his assistants travel round the country lecturing and giving advice on practical poultry-keeping. Thus farmers and other poultry-keepers benefit considerably. These have greatly improved their flocks, and are deriving better profits from their industry than they would otherwise do, without such assistance.

The poultry division further assist by paying all railway charges on all birds and eggs sent to the grading depots for export, where the breeds are killed, plucked, dressed, and stored in freezing chambers for one month, to await the shippers' convenience, at a nominal charge of 4d. per bird.

Eggs are received, candled, and packed at a uniform charge of 1d. per dozen. Eggs must weigh not less than 2oz. each and be newly laid. The Government provide all cases and reserve the right to reject any bird or egg not in good con-

dition, the rejected ones to be at once removed at the producer's expense.

The companies also purchase poultry foods in large quantities, and re-sell to their members only, at a small percentage on their cost price, which is also a great saving to the members.

The Government at their farms sell (to New Zealand farmers only, to encourage local industry) pure-bred poultry and eggs for hatching, at a fixed price of 10s. per bird, any breed, 6s. 6d. per setting for hen eggs, and 7s. 6d. per setting for duck eggs. The breeding-pens at these farms are all composed of specially selected stock, trap-nests being used in every house. Only eggs from the very best breeders are used for hatching and sales; con-

On the general farms where poultry receives its due attention, the movable colony house is used, built on skids and moved on to fresh ground weekly, saving considerably in the feed bill by the birds having free range. Each house is 8ft. by 5ft. and 7ft. high, with gabled roofs, and built to carry a water tank at the back. There is a large door in front which is usually left wide open day and night, there being no foxes or such enemies to contend with. The houses are fitted with movable perches eighteen inches from the floor, which are all on a level, with nests inside, and sand is spread on the floors. They are cleaned out weekly where a boarded floor is used, but many have an earthen floor. These houses are usually placed near



LAYING FLOCKS ON A NEW ZEALAND POULTRY FARM.

[Copyright

sequently the demand for young stock and eggs is very large.

In my travels through the country I was on many splendid poultry farms, and though I did not see the huge farms that I saw in the United States of America, I could not but admire the skill, industry, and business capacity of those engaged in the business. I could also see how the general farmer recognised that his poultry was a branch of his farm worth his attention, and that great improvements had been made in later years in most districts in the methods employed and in the class of poultry kept, all no doubt due to the practical instruction given by the Government officials.

some trees to provide shelter from the hot sun, and I have seen several fitted with a home-made, small scratching-shed placed to afford shelter from the rainy quarter.

Egg prices vary considerably in different parts of New Zealand. In the North Island, for instance, Auckland, in the warm northern part, returns the producer 9d. per dozen in the spring and early summer to 1s. 10d. per dozen in the winter, averaging for the year about 1s. 3d. per dozen; while Wellington, in the southern part, returns 1s. to 2s. 2d., averaging 1s. 6d. for the year, and Christchurch, in the South Island, averages the producer 1s. 5d. per dozen the year round.

*[Copyright.]*

HARTLEY COURT POULTRY-FARM.

HARTLEY COURT, the residence of Captain and Mrs. M. de Bathe, is situated a little way off the Basingstoke road, about three and a half miles out of the town of Reading. A Jacobean manor house, its front overlooks a spacious park containing some fine old timber; while at the rear is a stable court through which access is gained to the back premises and to the gravel space in front of the main entrance. Inside the latter—well, on the bright autumn day that favoured our visit there was but little time to spend indoors examining the art treasures with which Captain de Bathe has beautified his home, but we had leisure for seeing one or two features. One was the display of old china in the hall; another the oak-panelling in the study, the latter genuine Tudor work that connected Hartley Court with a date and perhaps a building anterior to the given time of its foundation. Outside, grouped, as it were, round the house, is the poultry plant.

We shall describe this presently as best we can, but for the moment some few facts about Captain de Bathe himself may be of interest. The son of a soldier, no one could mistake him

for anything but a soldier; and no one who talked to him for an hour could fail to note his almost tireless energy of mind and body. We mention this chiefly because it explains to a great extent Captain de Bathe's wonderfully rapid success as a poultry fancier and breeder. It will only be two years next month since he took possession of Hartley Court and, without any previous experience, started this always arduous and risky undertaking. He never employed, nor does he now employ, a paid manager; from the first he has not only supervised the entire work of the farm—which, by the way, includes a stock of Shorthorns as well as poultry—but has taken a hand in its every detail. We shall speak later of his stock and of his almost instantaneous show successes; here we may pause to mention one further interesting fact of Captain de Bathe's early career. He was an officer in the 8th Hussars, and it may be added that he served in three campaigns, in West Africa, India, and in South Africa during the last Boer War, when he was one of the besieged in Ladysmith. But the first five years of his service were passed, not as

TRADE SUPPLEMENT

a commissioned officer, but in the ranks; and when he retired and settled down, it was with the experience of a man who has not merely



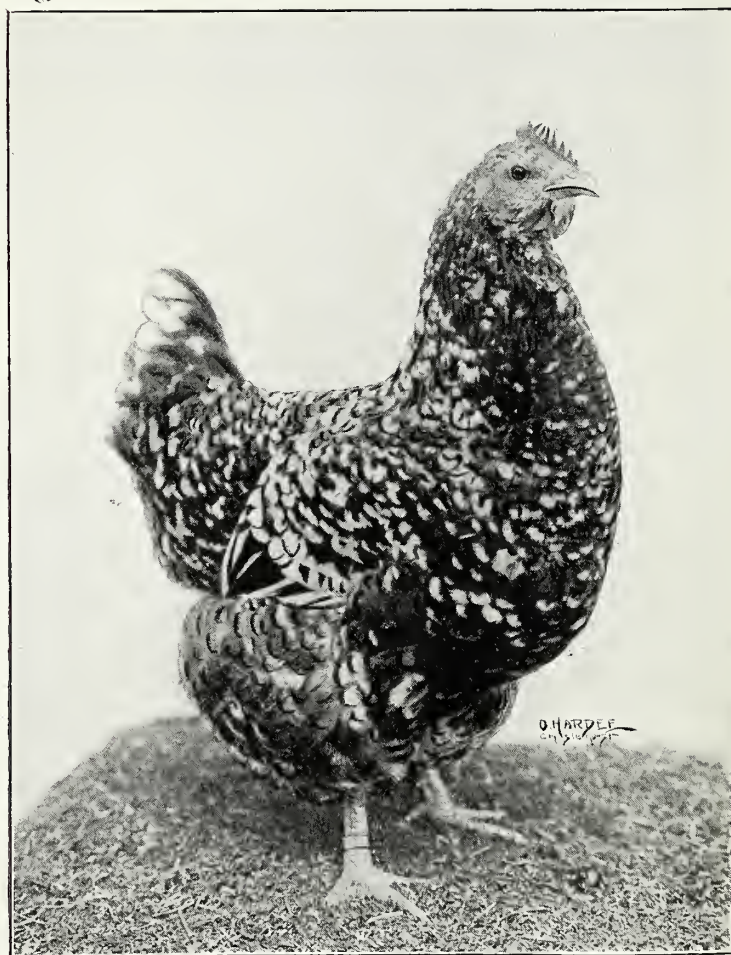
JUBILEE ORPINGTON COCKEREL.

1st, Hayward's Heath; 1st, Dairy; 1st, Crystal Palace.
The only three times shown.

seen the world, but has looked at it in turn from two totally different standpoints. This sort of "experience" seems to us to be not wholly unconnected with his success as a scientific breeder and a business man.

At any rate, as we walked over the farm, with the sun overhead and the ground sprayed lightly with the yellow leaves that were falling—for there are fine old trees all round and about the house and its environs—there was plenty of evidence of a practical mind, and a keen eye for opportunities of position, having been at work. The scheme of arrangement is not of the ordinary unimaginative kind that the text-books ordain for the would-be poultry-farmer; there is no stereotyped and obvious planning, yet it quickly dawns on one that the position of every house and pen and coop has been thoroughly thought out. The most formal feature of the whole plant is the range of eight houses for exhibition birds that one encounters in the large park-like field that lies across the

dry ditch separating it from the private garden in front of the dwelling-place. If one turns sharp to the right after leaving the front door, one comes quickly to this range of houses; and their form is sufficiently ingenious to detain one a while. The upper half of each house is practically one vast window divided into three compartments. The centre one of these is fixed and of glass, but so constructed that it can be taken out bodily, frame and all, in the hot weather; the compartments on each side are open spaces protected by canvas shutters working on a hinge from the top. These shutters—the glass compartment is protected in the same way—serve the purpose of sun-blinds, and, needless to say, they can be regulated as more air or less, and more or less shade, is required. Within the houses there are communicating doors, and the upper parts of these doors are simply wire-netting, so that there is a continuous current of air always passing through the range, well above and to the side of the level where the birds are likely to be, thus involving no risk from a draught. Wide dropping-boards and substantial perches, both easily removed, are features of the fittings; there is also an excellent type of nest-



JUBILEE ORPINGTON PULLET.

2nd, Fleet; 3rd, Dairy; 3rd, Crystal Palace.

box used (American, we believe), the point of which is that it stands sufficiently far from the wall to obviate the risk of a hen disturbing her tail feathers in the course of her manœuvres. Grass runs are attached to the backs of the houses, and the fittings of these, while simple, are sufficiently workmanlike. The roofs of the houses are of wood covered with a weather-resisting, felt-like material, and the walls are creosoted.

A square of four breeding-pens, each with the house in its centre, catches the eye as one proceeds after leaving the range just dealt with; and Captain de Bathe's catholicity and willingness to experiment may be guessed at from the fact that each house is of a different make. There is a rectangle of pens in the

note, considers the White turkey to be infinitely superior in its table qualities to the American Mammoth Bronze; nor does he base this opinion—as it would be quite human to base it—entirely upon the fact that he has bred a champion cock among his Whites. However, we must retrace our steps at this point, back past the house, into the stable-yard; or, even better, by the other way round, since this will enable us to see how the luxuriant shrubberies have been cunningly utilised to provide sheltered nooks and corners for cockerel-houses and coops. Then, in one of the stable-yard buildings, is discoverable a nice lot of Buff Orpington ducks in close proximity to a small pond; a gateway took us out of the yard into a small orchard, where the afore-mentioned



EXHIBITION HOUSES, WITH FLOCK OF WHITE HOLLAND TURKEYS OUTSIDE

[Copyright.]

adjoining field—or perhaps one should say the house end of the park, for there is nothing between them and the wide stretch of turf that extends to the distant lodge gates—and these contained, at the time of our visit, a flock of miscellaneous young birds. Before viewing them, however, one could not fail to notice in the former field the flock of White Holland turkeys that are Mrs. de Bathe's special province and just pride. From the merely ornamental point of view, the sight of those birds grouped under the spreading boughs of a magnificent oak was something to be remembered, and their utilitarian qualities were suggested by their dazzling plumage and general condition. Captain de Bathe, it is interesting to

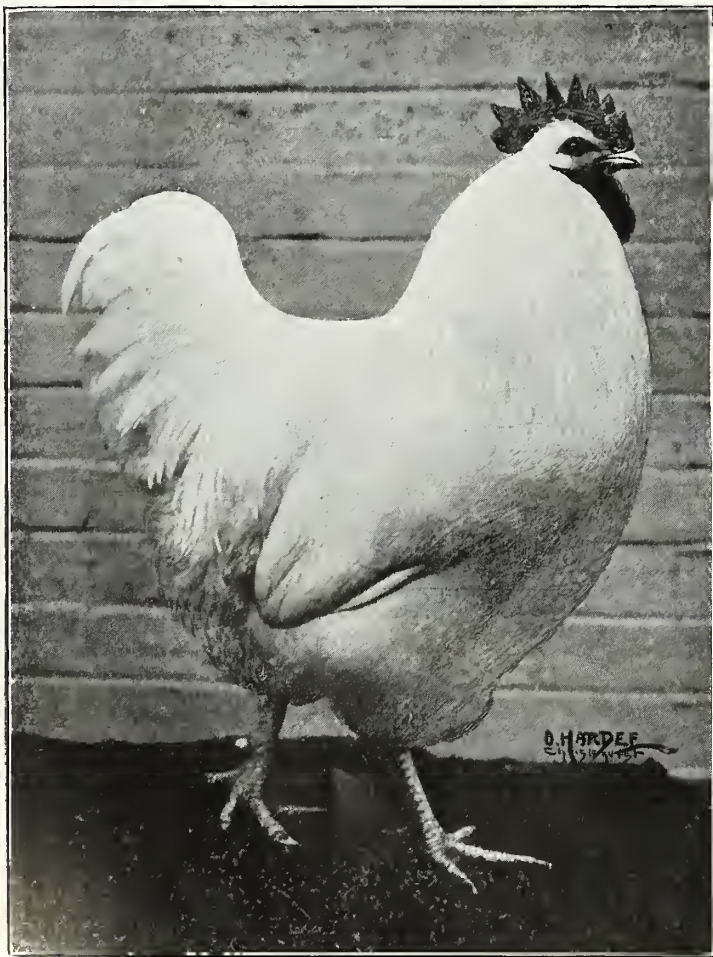
champion turkey cock was interviewed with his wives; and an outbuilding near by has been cleverly converted into an airy exhibition-room, which was full of birds intended for this winter's shows, while yet another outhouse is an ingeniously-contrived washing-house.

We must come quickly to the stock kept and the business therewith. The first-named is mainly the three varieties of Orpingtons—Spangled, Jubilee, and White; we have already mentioned the White turkeys and Buff Orpington ducks; we have still to mention the White Wyandottes, second only in importance to the Orpingtons. To this last must be added three fine pens, all typical birds, and some good winners amongst them, Minorcas and Black

TRADE SUPPLEMENT

Orpingtons. The main part of the business is, of course, breeding for exhibition stock; and what Captain de Bathe has achieved in this way within two years by a close study of the theory of heredity and the application of sound common-sense to management, combined with a devotion to work, may be gauged not only by the prize lists, but by the fact that, young as he is in the Fancy, many an older and well-established breeder comes to him for birds. It is noteworthy—and perhaps characteristic of the man—that the Orpington variety which he started with was the Spangled, the most difficult to breed of the three he now keeps.

In only one department of his business does Captain de Bathe leave the fancy for utility. This is in the systematic breeding and rearing of spring table-chickens for a private *clientèle*. These birds are Game-Orpington crosses; we saw several broods of them with the hens in a shed, and a nice healthy lot they looked. Of his methods in general, one may say that he avails himself of most modern conveniences,



TYPE OF THE WHITE ORPINGTON KEPT AT HARTLEY COURT.

such as incubators, hot and cold brooders, &c.; but it should be mentioned that his early chicks are mostly hatched out under hens. The fol-

lowing is a summary of his recent successes in the show-pen, and it is interesting to note that last year, his first year of showing, he was



TYPE OF WHITE ORPINGTON PULLET KEPT AT HARTLEY COURT.

awarded no fewer than seventy prizes. The prizes were all under different judges.

SPANGLED ORPINGTONS.—1st Cockerel, 1st Pullet, Paris International, February, 1910; 2nd Pullet, 3rd Pullet, 3rd Cockerel, 3rd Hens, Royal Show of England; 4th Cockerel, Hayward's Heath; 3rd Pullet, Birkenhead; 3rd Cockerel, 4th Cock, Reserve Cockerel, 1st Hens, Reserve Hens, 2nd Hens Selling, 3rd Cockerel, Selling, International, Crystal Palace.

JUBILEE ORPINGTONS.—1st Pullet, 3rd Pullet, Tunbridge Wells; 1st Pullet, Birkenhead; 1st and two specials Cockerel, Hayward's Heath; 2nd Pullet, Fleet; 1st Cockerel, 3rd Pullet, Dairy Show; 1st and Best in Show Pullet, Reading; 1st Cockerel, Weybridge; 1st Cockerel, 4th Cockerel, 3rd Pullet, 4th Pullet, 3rd Cockerel Selling, International, Crystal Palace.

WHITE TURKEYS.—3rd Cock, Dairy.

MINORCAS.—2nd Pullet, Hayward's Heath; 4th Pullet, Weybridge; 1st Pullet, Reading.

MARKETS AND MARKETING.

Week Ending October 22.

Chickens were very plentiful, but owing to the abundance of game the demand was very quiet, and prices did not range particularly high. There was, however, a fairly good demand for birds of best quality, but these were not present in large numbers. The value of ducks increased, but good birds were rather scarce, while geese were strong in numbers but did not meet with a great demand.

Eggs were very scarce indeed, but prices were very variable, one firm quoting 12s. to 15s. per long hundred, while another quoted 13s. to 17s. In the provinces the average price realised at thirteen of the leading markets worked out at 1s. 5d. per dozen, an advance of 1½d. per dozen on the previous week.

Week Ending October 29.

The market was remarkably well stocked with produce of all kinds, and prices on the whole were rather disappointing. The supply of game was small, but in view of the fact that supplies were expected to be very plentiful the following week prices were low. Poultry-keepers should learn to avoid sending chickens to market during the game season, for naturally prices range low during such a period. Turkeys were fairly plentiful, and were realising 5s. to 8s. 6d. each; a few picked specimens reached 10s. 6d., but there were not many that changed hands at this figure. There was a large supply of geese from France, but ducks were poor.

Eggs remained very scarce indeed, and the current price of English were 1s. 4d. to 1s. 6d. per dozen, but guaranteed new-laid were selling at 1s. 9d. per dozen. The price of eggs in the provinces, taking the average of thirteen markets, was 1s. 5½d., a halfpenny more than the previous week.

Week Ending November 5.

There was very little change in the market from the week previous. The cold weather had the effect of hardening trade somewhat, as it places retailers in a more independent position. Pheasants were fairly plentiful, and the best birds sold readily at prices from 2s. to 2s. 9d. each. There was a considerable quantity of rather low-grade pheasants, and these did not realise more than 1s. 3d. to 1s. 6d. each. Ducks sold well at from 2s. 6d. to 3s. 6d. each, geese at 6d. to 7½d. per lb., and turkeys from 5s. 6d. to 8s. 6d. each.

New-laid eggs reached a maximum price, fetching 2s. per dozen in the London market. Eggs have never been so dear as they have been during the last few weeks, and this should be an inducement to poultry-breeders to redouble their efforts so far as winter egg-production is concerned. The provincial average price was 1s. 6½d. per dozen, a penny more than last week.

Week Ending November 12.

The supplies of chickens were plentiful, but the demand was limited, and prices were not quite so

satisfactory as the previous week, notwithstanding the fact that there were some extremely fine birds. Turkeys were scarce, producers evidently holding back their birds for the Christmas markets. Pheasants were cheaper, and so were partridges. A large supply of foreign geese were present and prices were fairly good.

Eggs remained very dear indeed, and 2s. per dozen was the official price. The difficulty that dealers experienced, however, was to obtain supplies, one man stating that he had not received any at all that day. The average provincial price was 1s. 8d. per dozen, three halfpence above the previous week.

Week Ending November 19.

Supplies were again very plentiful, and prices as a consequence were not very high. The market was excellently stocked with first-rate quality pheasants, and thus it was only natural that chickens should be rather at a discount. Poultry-keepers are advised not to send chickens to market during the month of November, for prices are invariably low. There was a good supply of geese and turkeys, but prices did not range particularly high.

New-laid eggs remained at a high figure, and there seemed no likelihood of supplies becoming more plentiful for some time to come.

The average price of new-laid eggs in the provinces was 1s. 9d. per dozen, an advance of two-pence on the previous week.

THE TURKEY OUTLOOK FOR CHRISTMAS.

EXHAUSTIVE inquiries have failed to obtain any really authentic news as to the supplies of turkeys, either English or foreign, that will be available this coming Christmas. All salesmen have made the same answer: "Don't know, but, judging from reports to hand, they will be short; but, mind you, we do not know whether the reports are true or not." Continental shippers are very reticent about saying anything respecting available supplies. They generally commence operations by sending over a few about the middle of November, and ask a high price for the same; then, as Christmas approaches, larger quantities arrive and down go the values.

As Christmas Day falls on a Sunday this year, it is important that turkeys intended for sale on the Central Markets should be there not later than Monday, the 19th. The previous Friday or Saturday would be preferable, as retailers like to get their Christmas show of birds ready as early as possible during Christmas week. If the weather is bright and crisp they would be inclined to buy a little earlier, therefore it would be better for producers to market their birds about the middle of the week before Christmas.

TABLE OF PRICES REALISED FOR HOME, COLONIAL, AND FOREIGN POULTRY, GAME, AND EGGS FOR THE FOUR WEEKS ENDING NOVEMBER 19, 1910.

ENGLISH POULTRY—LONDON MARKETS.

DESCRIPTION.	PRICES REALISED DURING THE MONTH.			
	1st Week.	2nd Week.	3rd Week.	4th Week.
	Each.	Each.	Each.	Each.
Surrey Chickens	2/6 to 4/6	2/6 to 4/6	2/9 to 4/6	2/6 to 4/6
Sussex "	2/6 " 4/6	2/6 " 4/6	2/9 " 4/6	2/6 " 4/6
Yorkshire "	2/0 " 3/0	2/0 " 3/0	2/0 " 3/3	2/3 " 3/0
Boston "	1/9 " 3/0	1/9 " 3/0	1/9 " 3/3	1/9 " 3/0
Essex "	1/0 " 3/0	1/9 " 3/0	1/9 " 3/6	1/9 " 3/0
Capons	4/6 " 6/6	4/6 " 6/6	5/0 " 6/6	5/0 " 6/6
Irish Chickens	1/6 " 2/6	1/6 " 2/6	1/6 " 2/6	1/6 " 2/6
Live Hens	1/3 " 2/3	1/6 " 2/3	1/3 " 2/3	1/3 " 2/3
Aylesbury Ducklings.	—	—	—	—
Ducks	2/6 " 3/6	2/6 " 3/6	2/6 " 3/6	2/6 " 3/6
Geese	5/0 " 6/6	5/0 " 7/6	5/6 " 8/6	5/0 " 7/6
Turkeys, English ..	5/0 " 8/6	4/6 " 7/6	5/0 " 7/6	5/0 " 8/0
" Irish	—	—	—	—

ENGLISH GAME—LONDON MARKETS.

DESCRIPTION.	PRICES REALISED DURING THE MONTH.			
	1st Week.	2nd Week.	3rd Week.	4th Week.
	Each.	Each.	Each.	Each.
Grouse	1/9 to 2/3	2/0 to 2/6	2/3 to 2/9	2/0 to 2/6
Partridges	1/9 " 2/3	1/9 " 2/3	2/0 " 2/6	2/0 " 2/6
Pheasants	2/0 " 2/6	1/6 " 2/6	1/6 " 2/3	1/6 " 2/3
Black Game	2/0 " 2/6	2/0 " 2/6	2/0 " 2/6	2/0 " 2/6
Hares	1/6 " 3/0	1/6 " 3/0	1/6 " 2/9	1/6 " 3/0
Rabbits, Tame	1/0 " 2/6	1/0 " 2/6	1/0 " 2/6	1/0 " 2/6
" Wild	0/6 " 1/0	0/6 " 1/0	0/6 " 1/0	0/6 " 1/0
Pigeons, Tame	—	—	—	—
" Wild	—	—	—	—
Wild Duck	1/6 " 2/0	1/9 " 2/3	1/9 " 2/3	1/4 " 1/9
Woodcock	2/0 " 2/6	2/6 " 3/0	1/9 " 2/3	1/9 " 2/3
Snipe	0/6 " 1/0	0/6 " 1/3	0/6 " 1/3	0/6 " 1/3
Plover	0/10, 1/0	0/10, 1/0	0/10, 1/0	0/10, 1/1

ENGLISH EGGS.

MARKETS.	PRICES REALISED DURING THE MONTH.			
	Per 120.	Per 120.	Per 120.	Per 120.
LONDON	16/0 to 18/0	17/0 to 19/0	17/0 to 19/0	17/0 to 20/0
Provinces.	Eggs per 1/-	Eggs per 1/-	Eggs per 1/-	Eggs per 1/-
MANCHESTER	6 to 7	5 to 6	5 to 6	5 to 6
BRISTOL	1/6	1/6	1/8 to 1/9	1/6
	per doz.	per doz.	per doz.	per doz.

FOREIGN POULTRY—LONDON MARKETS.

COUNTRIES OF ORIGIN.	PRICES REALISED DURING THE MONTH.			
	Chickens. Each.	Ducks. Each.	Ducklings. Each.	Geese. Per lb.
Russia	Practically no trade.			
Belgium				
France				
United States of America				
Austria				
Canada				
Australia				

FOREIGN GAME. LONDON MARKETS.

COUNTRIES OF ORIGIN.	DECLARED VALUES.	
	Game.	Poultry.
Capercailzie	1/1 to 1/3	£1,821
Black Game	0/9 " 1/0	£3,344
Partridges	—	1,181
Quail	0/10 " 1/0	41
Bordeaux Pigeons	0/9 to 1/4	3,055
Hares	—	386
Rabbits	0/7 " 0/8½	15,884
Snipe	0/6 " 1/3	£23,850
Totals		£16,598

IMPORTS OF POULTRY AND GAME. MONTH ENDING OCTOBER 31, 1910.

COUNTRIES OF ORIGIN.	DECLARED VALUES.	
	Game.	Poultry.
Russia	£1,821	£3,344
Austria-Hungary	144	1,181
France	41	3,055
United States of America	—	386
Other Countries	14,592	15,884
Totals	£16,598	£23,850

IRISH EGGS.

DESCRIPTION.	1st Week.	2nd Week.	3rd Week.	4th Week.
	Per 120.	Per 120.	Per 120.	Per 120.
Irish Eggs	13/6 to 16/6	13/6 to 16/6	13/6 to 16/6	15/0 to 18/0

FOREIGN EGGS.

DESCRIPTION.	1st Week.	2nd Week.	3rd Week.	4th Week.
	Per 120.	Per 120.	Per 120.	Per 120.
French ...	12/6 to 19/6	12/6 to 19/6	12/6 to 19/6	12/6 to 20/0
Danish ...	19/0 " 17/0	19/0 " 17/0	19/0 " 17/0	19/0 " 17/0
Italian ...	11/0 " 15/0	11/0 " 14/9	11/0 " 14/9	11/0 " 14/6
Hungarian ...	8/0 " 11/0	8/6 " 10/9	8/3 " 11/0	8/0 " 11/0
Russian ...	8/3 " 10/6	7/9 " 10/6	7/9 " 10/6	7/9 " 10/6
Dutch	12/0 " 18/0	12/6 " 18/6	13/0 " 18/6	13/6 " 19/6
Styrian ...	8/0 " 11/0	8/9 " 11/0	8/6 " 11/3	8/6 " 11/6

IMPORTS OF EGGS.

MONTH ENDING OCT. 31, 1910.

COUNTRIES OF ORIGIN.	Quantities in Gt. Hund.	Declared Values.
Russia	999,086	£408,711
Denmark	312,426	157,124
Germany	33,282	13,515
Italy	22,118	10,424
France	53,183	23,855
Austria-Hungary	83,308	33,522
Other Countries	91,998	42,932
Totals	1,595,461	£690,083

JUDGES AND JUDGING.

By WILFRID H. G. EWART.

AS all poultry people know, there has been a great deal of talk and suggestion in connection with judges and judging during the past twelve months, and I am inclined to think the discontent—if such it is—has reached a climax. The exhibition season in whose midst we now are has to some extent clarified and defined an awkward and indefinite position—that is, in the sense that it has brought to a head all grievances and complaints. We know what people dislike and what they want, and sooner or later it will be necessary to try and solve some of these problems.

But I think one must appreciate in the first place how very difficult and responsible a judge's business is. Set before him are a number of birds—ten, eleven, twelve, or more—and he is positively expected to select from these the best, second best, and third best. There are no cards to guide him, no secondary outside opinion, no long hours in which to accomplish his task comfortably. He just has to place the awards, and that rather quickly. Now, to every well-balanced poultry mind it is known that an exhibition fowl seldom looks quite alike for three minutes on end; seldom stands the same, or shows quite the same quality of colour or the same poise. The nature of feathers and of a fowl preclude that. Therefore, it has ever been clear to me that to judge a well-contested class of fowls with unerring accuracy is a physical impossibility.

People talk a great deal—and, lately, people have written a great deal—about the inaccuracy of some judging and the injustice which has been done to their particular exhibits. This sort of thing seldom requires investigation. Perhaps there has been a mistake, but, as I asseverate, a fair number of mistakes in judging poultry is simply inevitable: an outcry or proclamation in the Poultry Press seems unnecessary. Such a great deal of injustice may be done to judges in this way, and yet at every show much the same thing happens. Always, there is a certain class of obnoxious fancier who will insist that the cards should have been placed in some different way, and who repeatedly rebukes the judge for blunders he has never committed. Carelessly, and utterly indiscreetly, he very often accuses the judge of dishonesty. "Here is A following B," he says, "and of course, A wins every class." That is the sort of harmful gossip—thoughtless, irresponsible—which is liberally distributed at every show.

It is necessary to be quite plain and outspoken (though fair) in discussing this matter of judges, and nobody is going to whitewash them because they are so frequently maligned. Most of the general criticism which has been levelled against them is, I believe, perfectly justified, and it is impossible to think that the best men undertake this most onerous work. Good individuals amongst them, of course, there are—honest, capable poultrymen in whose hands the distribution of prizes can quite safely be entrusted. Would they were all such!

That some are bad and others indifferent, while one or two are quite unfit to adjudicate, is a gener-

ally recognised fact. During my connection with the Poultry Fancy—and it has not been a very long one—I (as an individual exhibitor) have been left in no sort of doubt as to the character of certain judges: not in an indictable way, admittedly, not in a way which would justify action or report, but, none the less, quite decidedly. A poultry judge, like a solicitor and many other individuals who occupy responsible positions in various walks of life, is attended by numerous temptations. There is this important distinction, however, that your poultry judge is frequently a man of no particular education; while commonly he is shrewd in a blunt, uneducated way. With small prospect of detection and, if detected, no great penalty facing him, he can enter light-heartedly on improper contracts, each of which may be worth to him a five-pound note. So great are his opportunities, so small his risks, that I should consider him more than human if he did not in some instances succumb to temptation.

But there is another kind of man who, though, perhaps, honest, has equally little right to judge poultry shows. That is the incompetent man. It has been my astonishing experience to meet "judges"—few and far between, I admit—who really and truly could not discriminate between a cock and a cockerel, a hen and a pullet, and whose conceptions of many breeds were rudimentary and inaccurate. Such men have invested the major portion of their interest in other branches of the Fancy than poultry, and incidentally they term themselves all-round practitioners. Sheer "push," overweening self-assertion, carries them through any ordeal of cross-examination; they wheedle the youthful, timid, or ingratiating reporter into favourable accounts of their awards—or else they report themselves. While it is not suggested for an instant that every all-round Fancy judge is incompetent to adjudicate on poultry, one can say plainly that the best judges of fowls are the men who specialise in them and them alone.

Of one more type of judge I must complain. There are individuals who, wishing to get through their work as quickly as possible, take no particular trouble to do it properly. At shows—and especially agricultural shows—in out-of-the-way districts, I have seen extraordinary pieces of judging which could only be explained on the hypothesis that the responsible party was in a hurry. And no further explanation was forthcoming, because he had disappeared.

There is, therefore, I firmly believe, much sincere cause for complaint of judges and the judging system under present conditions. The whole thing seems so indefinite—so annoyingly and inexcusably indefinite—when one considers how many competent and upright men there are in the Fancy. Why let A, who is moderately skilled and notably dishonest, judge every class of your show when B is at hand, competent to judge from every standpoint? A judges a score of shows in the course of the year, B not one. That is somewhat the position as regards all-round judges in the Poultry Fancy at the present time. There seems to be neither discrimination nor control nor authority, save only in the case of the specialist judge and the specialist club which appoints him. To these I have in no way referred.

TRADE EXHIBITS AT THE PALACE SHOW.

ALTHOUGH not so numerous as at "The Dairy," the trade exhibits at the Grand International Poultry Show, held on November 15, 16, and 17 at the Crystal Palace, were none the less interesting and in many respects more attractive, the spaciousness of the building allowing more scope for effective display.

INCUBATORS, REARERS, POULTRY-HOUSES, &c.

Randolph Meech, of Poole, Dorset, had the largest exhibit in the Show. This included examples of all the various houses, foster-mothers, coops, &c., he manufactures, prominent amongst them being "The Bargainette," "Enniscorthy," "Reynolds," "Crystal Palace," "Improved Lean-to" and "Tenant Farmer" houses, "The Rising Sun," "The Wooden Hen" and Hygienic brooders, in addition to Bone Mills, Coops, Feeding Troughs, Egg-Boxes, Runs, Sitting-Boxes, Trap-Nests, and galvanised wire fencing.

Spratt's Patent, Limited, of 24 and 25, Fenchurch Street, E.C., as proprietors of the famous "Hearson" incubators and foster-mothers, had on show a comprehensive display of all the excellent appliances with which the name of Hearson has so long been associated.

A. E. W. Phipps, Harborne, Birmingham, secured for the seventh successive time silver medals—highest award—for both incubators and foster-mothers offered by the International Committee for the best appliances exhibited in these classes. In addition to the above, Mr. Phipps showed a wide range of houses of excellent design and manufacture.

The Surrey Poultry Appliance Co., of Woking and Worplesden, although occupying a very small space, showed two very excellent appliances in the "Bentworth" patent foster-mother and the "Invincible" coop. For the former, the company was awarded the bronze medal, which it certainly deserved.

Harry Hebditch, of Martock, Som., showed examples of his well-known poultry-houses, incubators, and foster-mothers. Mr. Hebditch gained an award of merit in competition for poultry-houses.

Well-made and carefully-constructed poultry-houses were also shown by Arthur Neversen, of Peakirk, Peterborough, who secured a silver medal for his patent self-cleaning fowl-house; W. F. Snell, Marsh Farm, Yeovil; Harry Payne, of Newbury, Berks; and the Westmeria Co., Leighton Buzzard, who also exhibited their well-known "Westmeria" incubators and foster-mothers and the highly popular "Westmeria" breeding-pen—this is an excellently arranged pen, and is built of the best material. Incubators and foster-mothers were also shown by J. E. L. W. Ashworth, of Birkdale, Southport. William Lea, of Royal Appliance Works, Birkdale, showed his well-known "Triumph" incubators, which, as is now well known, are heated by a

boiler and circulating pipes, thus, it is claimed, ensuring a uniform temperature in every part of the egg-chamber. Mr. Lea had also on view the "Shaw" scientific hen and general poultry-houses.

The Incubator Components Co., of Gloucester, had, as usual, an attractive display of their highly-efficient "Gloucester" incubators and foster-mothers. The firm was also showing a novelty in the form of a mechanical fowl killer, which should fill a long-felt want to those poultry-keepers who find the ordinary methods of killing disagreeable. In appearance this appliance is like a large pair of shears, to which is attached leather straps for holding the wings and beak of the fowl; the operation of killing being performed by closing the jaws, when a sharp knife severs the jugular vein.

The Cyphers Incubator Co., Balfour House, Finsbury Pavement, E.C., had, as usual, an attractive stand, whereon they showed examples of the excellent incubators, brooders, &c., they manufacture.

T. Craven and Sons, 97, Corporation Street, Manchester, were also very much in evidence with an excellent display of poultry and pigeon appliances. For their very serviceable bone-cutter they were awarded a bronze medal.

Gilbertson and Page, Ltd., of Hertford, Herts, were showing examples of the "Gilpa" incubators and foster-mothers, and A. Cook, 37, Waterloo Bridge, S.E.; a full line of poultry and pigeon hampers.

FOODS, MEDICINES, &c.

Poultry-food manufacturers were, as usual, largely in evidence, the list including such well-known firms as Spratt's Patent, Ltd., Fenchurch Street, E.C., proprietors of "Laymor," "Chikko," &c.; J. Ashby and Sons, Brixton Mills, S.W.; "Old Calabar," of Liverpool; W. G. Clarke and Sons, Limehouse, E., whose "Vigan Rusks" are rapidly gaining popularity amongst all classes of poultry-keepers; A. Thorpe and Sons, Rye, Sussex, whose foods include "Cock o' the Walk" poultry-meal, "Lactum" chicken-meal, "Oatum" and Sussex Ground Oats; Wm. Arnold and Sons, Paddock Wood; the "Queenboro'" Dog, Game, and Poultry Food Co., Ltd., of Queenboro'; Gould Bros., of Stratford, E.; A. Stiles, Springbank Mills, Heathfield; White, Tomkins, and Courage, Ltd., 48, Mark Lane, E.C., proprietors of "Clarendo"; Liverine, Ltd., Grimsby; the Allen Poultry Co., Ltd., Sawbridgeworth; William H. Cook, St. Paul's Cray, Kent; and Gilbertson and Page, Ltd., Hertford.

Medicines were shown by Stephen Pettifer and Sons, Malmesbury, Wilts; Dixons, of Handsworth, Birmingham; and the Wilson Medicine Co., Ashford, Middlesex. Challenge Cups, Medals, &c., were shown by Dobson and Sons, Piccadilly, W.

Following a rule observed for several years past, Mr. W. Tamlin, of St. Margaret's Works, Twickenham, was not showing at the Palace.

**Will our Readers and Advertisers kindly
note that on and after December 2nd,
1910, our address will be
TUDOR HOUSE, TUDOR STREET, E.C.**

YORKSHIRE NOTES..

By FRED. W. PARTON.

IN the early months of the year an attempt was made to collect eggs in the rural districts for sale in the densely populated towns in the West Riding. This work was taken up by several people, who devoted all their energy to endeavouring to make a business out of it; and, conducted on right lines, there is no reason why it should not have been made a huge success, since the demand for eggs in York-

shire and Lancashire is practically unlimited. An excellent start was made with this enterprise. The collector, in the majority of cases, supplied boxes and paid carriage in districts that were too far distant for personal collection. All went on satisfactorily until the approach of cold weather. Then, in villages where thousands of eggs had been collected in the early summer none were to be had! Probably a few are now being produced, but instead of letting the collector (whom they were only too pleased to supply in summer) have what small quantity they have to dispose of, they sell them elsewhere. This certainly is not playing the game, and will shake the faith of all large English egg-buyers, who are compelled to depend upon the foreigner for their winter supply. The case here mentioned of the failure of the person who started on his own behalf to collect eggs is typical of many who have made the same attempt

in Yorkshire. Private enterprise is all very well, but what is required in this county, as elsewhere, is a system of collection of eggs, which must be a system properly organised, and one that can fight with, rather than despair at, the Yorkshireman's objection to combine. The National Poultry Organisation Society is doing most excellent work, and collecting depots are formed in all parts of the country, yet none are to be found in any of the three Ridings. It is, however, to be hoped that with the increase in the number of small-holdings, on which poultry must play a very prominent part, the need for better methods of

marketing will be felt, and steps taken towards more combined effort.

Eggs are exceedingly scarce this year, more so than I ever remember. It is widely acknowledged that the demand for eggs is increasing, but it seems that a large section of poultry-keepers have catered more for the spring and summer trade than for the autumn and winter demand; consequently non-sitting breeds are most in evidence, which accounts to a large extent for the present dearth of eggs. I was quite recently told by a farmer in Cleveland that, in all his twenty-five years' experience as a poultry-keeper in

this district, he has never had so few eggs as this year. The breeds on his farm are all non-sitters (except a few mongrels kept as brooders), chiefly Leghorns. We have nothing but praise for the marvellous laying powers of this breed; at the same time, to get both summer and winter layers breeds of distinctly different types must be kept. One of the few farmers in the same district, who has a good and regular supply of eggs this winter, conducts his work on these lines, and keeps Leghorns and Partridge Wyandottes. The Partridge Wyandotte is a very good winter layer, and is an exceptionally hardy breed. This latter qualification alone ought to be a great recommendation, since a breed of this description is required for some of the exposed moorland of the North and East Ridings. Why this variety of the Wyandotte family has not become more popular with farmers it is difficult to say.



WHAT CHRISTMAS CHICKENS SHOULD BE LIKE. [Copyright.]

The old system of caponising surplus cockerels is still growing in the county, and the demand for instruction in this work is decidedly on the increase. I was recently told, in answer to my inquiry, by a man who regularly caponises a large number of cockerels every year, that he sells his capons merely as table-chickens, without stating the fact that they are capons, since were he to mention this in the Northern markets he attends it would convey no meaning. Yet he declares that the prices obtained amply recompense for the labour entailed.

ARTIFICIAL INCUBATION.

By A. A. FLEMING.

ARTIFICIAL incubation, or hatching by incubators, is much to be preferred if one wishes to hatch early chickens, as owing to the hen not usually become broody until nearly spring, it is practically impossible to hatch any number of very early chicks under natural incubation. For the small poultry-keeper who wishes to hatch and rear a few birds every year, the hen will be found most useful, but if it is desired to hatch a large quantity incubators are absolutely essential.

There are a great many different types of incubator now on the market, many of which are very high-class machines, and I strongly advise any purchaser to buy from a reliable firm, who have their reputation to keep, rather than waste their money on a cheap and inferior article which will probably only last a year. Incubators of the present day are made on two different principles—viz., hot water and hot air—and having worked both kinds, I must honestly say that the results obtained from the best of each make are about equal. Some machines are easier to understand and work than others, and my own experience is that the hot air is the simpler of the two. When the hot-air incubator was first introduced a few years ago, a charge was made against it that it would not stand the variations of the English climate and keep a level temperature; but this has been proved false, and this type of machine has now reached such a high stage of perfection that not only will it hatch in any climate but will maintain an even temperature. In the tank machine you have to use hot water, and it consequently takes longer for an incubator of this pattern to heat up than it does for the hot air.

Incubators may be run by oil, gas, or electricity, the most common, of course, being oil; but any machine can easily be fitted up for gas with a little tubing and a special burner. It is always wiser to run the machine a day or two before putting in your eggs, in order to make sure that the machine is running quite steady. The temperature of a hot-air incubator should, generally speaking, be 103 degrees, and that of a hot-water machine 104 degrees.

As with the hen, only the best shaped eggs should be set, and the fresher they are the better the result, although I have frequently obtained excellent hatches from eggs three weeks

old. Be certain that your stock from which you are getting your eggs are quite healthy and vigorous, and remember that even the best incubator cannot hatch unfertile eggs, as many novices seem to expect, but a good-class machine will hatch out practically every fertile egg, and the chicks are quite as strong as those hatched under the hen. The best place to run an incubator is one in which you will get uniform temperature, and undoubtedly the finest is the cellar. Of course, they may be worked in a living room or out-building, but care should be taken to keep out draughts and direct sunlight. On no account have the machine so placed that there will be any vibration. Endeavour to keep the temperature of your room about 60 degrees, and be sure that you have plenty of good ventilation; this is a vital point in artificial incubation, owing to the air becoming devitalised by the fumes from the oil or gas. Chickens hatched under bad ventilation are never so strong.

As each maker sends out his own directions for working the incubator, I only propose to say a very few words as to the starting and general management.

Once the machine is set going, do not attempt to meddle with the lamp, but if you find that your temperature is too high or too low, heighten or lower your regulator accordingly. Always keep a nice level flame and do not allow the lamp to smoke. The lamp should be filled once daily with the very best paraffin oil obtainable, and the wick trimmed; the best time to do this is early evening. Have sufficient flame to



WHITE ORPINGTONS, BELONGING TO THE HON. MRS. WILLOUGHBY,
NEAR GRANTHAM. [Copyright.]

keep the valve swinging free about the eighth of an inch. Too much care cannot be taken to keep the lamp and burner clean, and it is better to start each hatch with a new wick. In hot weather the wick may be clipped at the corners to reduce the size of the flame. Eggs for hatching should be kept in a room in a temperature of 50 degrees. There are many devices for turning eggs, but I believe Nature's way is still the best, and the nearest copy we have to Nature in a machine is that of turning or shuffling the eggs with the hand. Remember a sudden jar might easily kill the germ. Eggs should never be left standing on end in incubators. Most makers advise the eggs being left alone after the eighteenth day. The first week the eggs are generally cooled sufficiently in the turning. They should be turned twice a day and cooled once. The length of time the eggs are allowed to cool will to a great extent

depend upon the eggs themselves. They should be put back when the sensation of warmth has left them, but do not let them get stone cold. Start cooling with five or ten minutes and gradually increase to twenty and thirty the last week. In very hot weather or in a warm room they will take even longer.

As with the hen, eggs can be tested the fifth day, but it is advisable, unless you are an expert, to leave it until the seventh day, testing again on the fourteenth day, and removing any with dead germs. Unfertilized eggs may be eaten or sold to the confectioner. The reason of testing is that the live eggs do far better if the dead ones are taken away. A live germ shows a dark spot with blood veins radiating out, giving the appearance of a spider's web.

In order to obtain an equal distribution of heat use a spirit level when you are setting up your machine.

Chickens may be placed in brooders which have been previously warmed about twelve hours after hatching.

In conclusion, those who are about to take up artificial incubation need have no fear, as it is quite as easy to hatch young stock this way as it is with the broody hen; and I guarantee that the merest novice will obtain a good hatch the very first time, if he will only use a little common sense and follow the directions of the maker.

THE CARE OF THE GRANARY ON THE POULTRY-FARM.

AT the very beginning of any new enterprise connected with the rearing and feeding of stock—except in the case of "model" farms, which can only fall to the lot of the fortunate few—the question of "makeshift" in one form or another is sure to confront us; and we shall have to decide at the start what part of our plant it will be wiser to lay out a little money on and improve, and what things can prudently be left as they are for the present until the venture is well established.

But among the various important matters that seem to claim instant attention, the granary undoubtedly stands in the front rank, when we consider that on a poultry-farm the question of food-stuffs is so important, and their cost so heavy, that it is imperative to do everything possible to prevent avoidable loss; and a makeshift granary, with leaky roof, damp floor and walls, no equipment, and easy access to hosts of hungry rats, will assist in swelling the food bill to no purpose. It is impossible to store corn and meal safely in a damp granary, and if the roof is not sound, this should be seen to first, and the walls also be made as dry as possible. This done, the floor can then be dug up to the depth of about a foot and filled in with cinders, &c., well beaten down. If a brick or concrete floor can be provided, and the whole building rendered rat-proof, so much the better, as food can then be stored in the sacks until

wanted, and the expense of bins, &c., almost entirely avoided. But in no case should sacks stand on the floor itself, but on planks raised on bricks off the ground, allowing a free circulation of air underneath. A better plan still is to provide broad shelving (made of stout planks placed a few inches apart, and supported on strong uprights) running round the building, and on this the sacks can be laid on their sides, three or four deep, and removed for use as required. But in the majority of old buildings it will probably be found far easier to render them damp-proof than rat-proof, and it may be impossible to keep these pests out altogether, especially if the roof is made of thatch. In this case the sacks must be shot into receptacles of some kind, else the rats will eat and destroy an incredible quantity of food, besides spoiling the sacks.

For those to whom the question of expense does not greatly matter, iron corn-bins are the simplest solution of the difficulty. But by looking about us, we may often obtain for a very moderate sum such prizes as the large tea-canisters used in some shops, holding each a considerable quantity of corn or meal, which answer the purpose perfectly. Failing these, large wooden chests covered carefully on the outside (not forgetting the bottom) with thin galvanised-iron sheeting, securely nailed down with large-headed nails, will be found very useful, and have this advantage that they can be made to any size and shape required. At one time empty paraffin-casks were in great demand for the purpose, as they were perfectly dry and rats would not touch them. They could be bought very reasonably in those days; but since the practice of delivering oil in tank carts at customers' doors in small quantities has become almost universal, these barrels have gone out of common use, and have in consequence greatly risen in price. A moderately good substitute for them may, however, be found in empty soda-casks, which, when heavily tarred on the outside, will resist rats, and as they only cost about 1s. 6d. each, they are well worth picking up whenever a chance offers.

In no department of the poultry-yard is a good system of keeping a stock account more necessary. It should be possible, also, to ascertain in a moment exactly how much of each kind of food is in stock, and where it is stored, to prevent unnecessary waste of time in opening sack after sack to find the particular grain, &c., needed. A slate should be hung up in a convenient place, and as the stock of any food begins to run low, a note should be made of it and fresh supplies ordered in good time.

Carefully studying the markets, so as to buy at the right time and place, and if necessary so rearranging the feeding as to allow of the substitution of a cheaper grain for one whose price has risen very much, seizing the favourable opportunities that sometimes occur for purchasing cheaply, coupled with care and attention in so storing food-stuffs as to prevent wastage by weather, vermin, and careless handling at feeding-time, will all help materially in reducing the food bill, that most serious item in the balance-sheet of the keeper of poultry for profit.

THE UTILITY POULTRY CLUB'S FOUR MONTHS' LAYING COMPETITIONS.

THE first four weeks of the two competitions, which are being conducted by the Club, terminated on the 14th ult. The pens are competing for prizes to be awarded for the greatest value in eggs laid. In the Southern Competition, held at Grimley, Worcester, under the management of Mr. Geo. Nicholls, 78 pens are competing, and in the Northern Competition, held at Bartle, near Preston, under the management of Mr. Wm. Barron, 34 pens are competing.

The records of the leading pens are: Pen 72, White Leghorns, 63 eggs, value 8s. 4d.; pen 7, Buff Orpingtons, 59 eggs, value 7s. 11d.; pen 53, White Wyandottes, 50 eggs, value 6s. 9d.; pen 19, White Wyandottes, 48 eggs, value 6s. 8½d.; pen 71, White Leghorns, 49 eggs, value 6s. 8d.; pen 54, White Wyandottes, 49 eggs, value 6s. 3½d.

The highest individual score was 26 eggs, gained by a White Wyandotte pullet in pen 36.

The report from the Northern Competition is still more favourable. In spite of heavy rains and some hail and snow showers, all the pens have commenced to lay, the 34 pens contributing 1,488 eggs.

The records of the leading pens are: Pen 32, Anconas, 85 eggs, value 11s. 10d.; pen 3, White Wyandottes, 81 eggs, value 11s. 6¾d.; pen 9, White Wyandottes, 81 eggs, value 11s. 1¼d.; pen 5, White Wyandottes, 73 eggs, value 10s. 4¼d.; pen 30, Black Leghorns, 65 eggs, value 9s. 3¾d.; pen 11, White Wyandottes, 69 eggs, value 9s. 3d.

The highest individual score is the same as that in the Southern Competition—namely, 26 eggs credited to a Buff Orpington pullet in pen 20.

The managers welcome visitors to the Competitions, and are pleased to give any information.

THE WHITE WYANDOTTE CLUB.

DIGEST of annual general meeting at the Crystal Palace on Wednesday, November 16, 1910.

PRESENT.—Miss Edwards and Messrs. Goode (chair), Peel, Ewart, Hodges, Nancarrow, Hunting, Simpson, Hicks (hon. secretary and treasurer) and others. Minutes of the last meeting were duly read, confirmed and signed. Election results were read. Hon. secretary's report showed continued advancement, and that specials had been granted to thirty-five shows during the year, and that over forty new members had been elected. Hon. treasurer's report showed that a balance of over £18 was in hand, compared with under £3 last year.

The hon. auditor, Mr. Harrington, having resigned, Mr. Hunting was duly elected.

It was decided not to place any limit price on the exhibits in the Novice Classes at Club Shows, and suggested that a £5 selling class might be added another year. Mr. Peel spoke condemning the growing prevalence of red tinge in shanks, with which the meeting unanimously agreed.

Messrs. Eliot, Meim, Norris, Kirk, and Pegler were duly elected members.

The Club Show will be held at Sheffield on December 7 and 8. Schedules now ready. Judge, J. Stephen Hicks.

RESULT OF ELECTION.—President—J. H. Richards, 31 (elected). Vice-presidents—R. Anthony, 36, and Miss N. Edwards, 35. Committee—W. M. Elkington, 55; W. Moore, 45; J. Wharton, 43; W. P. Hollis, 41; W. Heydon, 40; J. C. Hunting, 38; W. Whitley, 37; and Mrs. Trevor-Williams, 33. Club Judges—J. S. Hicks, 64; C. N. Goode, 57; W. M. Elkington, 45; G. H. Richards, 45; R. Anthony, 39; J. Wharton, 36; H. Peel, 36; J. C. Hunting, 30; W. Moore, 29; W. Heydon, 22, and J. A. Cowie, 20. Seventy-two papers were returned all correct. Mr. Broomhead kindly acted as scrutineer.

J. S. HICKS, Hon. Secretary.

ANSWERS TO CORRESPONDENTS.

The Editor will be glad to hear from readers on any Poultry Topics, and all Queries addressed to the paper will be answered if possible in the issue following their receipt. The desire is to help those who are in any difficulty regarding the management of their poultry, and accordingly no charge for answering such Queries is made. Unless stated otherwise, Queries are answered by

F. W. PARTON,

Lecturer in Aviculture, The University, Leeds.

Fattening Turkeys.

I have got some Irish turkeys to fatten for Christmas, but I cannot make them eat. I feed on ground oats and barley meal twice a day, but they refuse to eat. Can you suggest what is the matter?—IRISHMAN (Blaydon).

You do not say how long you have had the Irish turkeys. Perhaps their loss of appetite is due to their not having grown accustomed to their fresh surroundings. If the birds are in good health, the feed you mention should appeal to them. They may, however, have been used to grain feeding only. Try them with grain, and then gradually re-introduce the soft food. Small quantities of cooked meat mixed with the latter may tempt them.

Judging Dead Poultry.

Will you please tell me what are the points that I must look for in judging table-poultry? I have been asked to judge at a small Christmas Show, and I am anxious for an early reply.—E. B. (Claydon).

The two chief points to observe in judging table-poultry are size and quality of flesh. The flesh should be soft, smooth, and fine in texture, and of good colour. An exhibit that is medium in size, but excellent in quality of flesh, should take a higher place than a huge and grossly-fattened specimen that is coarse in quality. Careful plucking and exhibiting should also be regarded. Experience is necessary in judging table-poultry, and great care must be exercised. If you have no knowledge in this matter, we would advise you not to undertake the work of judging.

Cross for Table.

What is a good cross for the table? I have tried Buff Orpington-Houdan, but I do not like it.—F. M. (Cheltenham).

The nature of the soil must be taken into account before determining what breed or cross is most suitable for producing table-chickens. When the soil is light, the Indian Game and Dorking cross is one of, if not *the*, best. Under less favourable conditions, we would recommend an Indian Game male crossed with Faverolles or White Orpington hens.

Eggs for Hatching.

Please tell me the best way to keep eggs that I want for hatching. I have only one 100-egg incubator, and some of the eggs must be nearly three weeks old when they are put in the machine. Your help will be appreciated.—E. H. (Bognor).

When eggs must be kept for a certain time before they are set they should be placed in as cool a chamber as possible, when it can be managed, at a temperature of 50 deg.,

and the eggs require turning every day, so as to prevent the white sticking to the inner membrane.

Winter Eggs.

Which is the best layer in cold weather? I have a lot of Leghorns, but they do not seem much good. What about Buff Orpingtons?—M. S. T. (Woodbridge).

Any breed will lay a certain proportion of their eggs in winter, provided they are hatched at the right time of year. There are, however, some that are considerably better in this direction than others. You cannot do wrong in selecting one of the general purpose type—for preference, Plymouth Rocks, Wyandottes, or Buff Orpingtons.

Ducklings for Spring.

When should I bring out ducklings to get the top prices for them? I was so late this spring that I got a very poor price, although they were good birds.—G. D. O. (Bath).

The time when ducklings command the highest prices is from January to the end of May. Endeavour to hatch in November, and continue hatching, for this trade, until the first week in April.

Short Replies.

B. S. T. (Penrith): No.

A. D. (Mallow): (1) 75 per cent. (2) 10 per cent.

S. M. K. (Petersfield): See reply to R. M. (below).

R. O. M. S. (Bentham): (1) White Leghorns. (2) From 8 to 12.

R. M. (Mudecum): Prices vary greatly; about 12s. 6d. is a fair average.

EXQUIRER (Sunbury): We have forwarded the letter as requested.

P. T. H. (Hertford): There is no firm of this name in the poultry business.

C. H. T. (Sandown): There are no fewer than 78, so we cannot tell to which you refer.

"Profitable Poultry."

We have received a copy of *Profitable Poultry*, a new American monthly under the editorship of Mr. A. F. Hunter, who is well known in the poultry world, having had many years' experience as a practical poultryman, poultry writer, and editor. The first issue of the new paper, which was published on November 1, is filled with interesting matter, and being excellently printed on art paper it should appeal to a wide circle of readers. The utility side only is dealt with, for "there are 'Fancy' papers now without number. We aim to be different, so while we shall encourage the breeding of good stock, no space will be wasted on fine points of combs or feathers." We congratulate Mr. Hunter very heartily on the first issue, and we tender him our best wishes for success.

A £50 White Orpington.

The sensation of the Crystal Palace Poultry Show was the purchase for £50 of the winning White Orpington cock by Mrs. Trevor-Williams, of Clock House, Byfleet. The well-known lady exhibitor won second in the same class, and has purchased the winning bird to further strengthen her breeding-pens of this charming and profitable (both for Exhibition and Utility) variety. Mrs. Trevor-Williams also won third in the White Orpington Pullet Class, which contained 37 birds.

OUR BOOK MARKET.

Any of the following books will be supplied at the prices named. Cash must always accompany orders.

Amateur Poultry-Keeper. By W. M. ELKINGTON. 120 pages. Fifteen illustrations. Price, 1/2 post free.

Incubators and their Management. By J. H. SUTCLIFFE. Fifth Edition. Illustrated. Price, post free, 1/2.

Lett's Poultry-Keeper's Account Book. Edited by LEWIS WRIGHT. Cr. 8vo. Post free in the United Kingdom, the Colonies, and foreign countries, 2/8.

Poultry and Egg Raising at Home. By W. M. ELKINGTON. Illustrated. Price, post free, 1/2.

Poultry Culture for Profit. By Rev. T. W. STURGES, M.A. Third Edition. Cr. 8vo, 134 pages. Fully illustrated. Post free in the United Kingdom, the Colonies, and foreign countries, paper covers, 1/3; cloth, 1/9.

Poultry Fattening. By EDWARD BROWN, F.L.S. Fifteen illustrations, 120 pages. Price, 1/2 post free.

Poultry for Prizes and Profit. By JAMES LONG. New Edition. Revised by W. M. ELKINGTON. Illustrated. Post free 6/4 in the United Kingdom; in the Colonies and abroad, 7/6.

Poultry-Keeping as an Industry for Farmers and Cottagers. By EDWARD BROWN, F.L.S., Secretary of the National Poultry Organisation Society. Sixth Edition. 4to, 206 pages, fully illustrated. Post free in the United Kingdom, 6/6; 6/9 to the Colonies and foreign countries.

Popular Poultry-Keeping. By W. M. ELKINGTON. Illustrated. Price, post free, 1/2.

Possibilities of Modern Poultry-Farming. By J. STEPHEN HICKS and W. H. G. EWART. Price, 1/1½ post free.

Progressive Poultry Culture. By ARTHUR A. BRIGHAM, B.S., Ph.D. Illustrated. 300 pages. Post free, 6/6.

Races of Domestic Poultry. By EDWARD BROWN, F.L.S., Secretary of the National Poultry Organisation Society. 4to, 234 pages, with chapters on breeding, fully illustrated. Post free in the United Kingdom, 6/6; 6/9 to the Colonies and foreign countries.

Record Poultry Book. Nine illustrations. Written by Experts. Post free, 1½d.

Record Poultry Book. Nine illustrations. Written by Experts in Welsh. Price, post free, 1½d.

Report on the Poultry Industry in America. By EDWARD BROWN, F.L.S. Third Edition. Fully illustrated. Price, post free, 1/3.

Report on the Poultry Industry in Denmark and Sweden. By EDWARD BROWN, F.L.S. Fully illustrated. Price, post free, 1/3.

The New Book of Poultry. By LEWIS WRIGHT. Demy 4to, 600 pages, with many coloured plates, &c. Post free in the United Kingdom, 21/10; 24/- to the Colonies and foreign countries.

The Poultry Manual. By Rev. T. W. STURGES, M.A. 600 pages, 52 illustrations. Price, 6/6 post free.

Report on the Second National Poultry Conference, 1907. Edited by EDWARD BROWN, F.L.S. 382 pages, with nine illustrations. Post free in the United Kingdom, 5/6; in the Colonies and foreign countries, 6/-.

The Practical Poultry-Keeper. By LEWIS WRIGHT. Cr. 8vo, 320 pages, with eight coloured plates and other illustrations. Post free in the United Kingdom, 3/10; 4/- to the Colonies and foreign countries.

BROWN, DOBSON, & Co., Ltd.,
15, Essex St., Strand, LONDON, W.C.

TRADE NOTICES.

Mr. Tamlin's Exports.

In sending us his list of exports for October, Mr Tamlin draws special attention to the fact that during the last month machines have been exported to nearly every part of the globe. The list is a particularly heavy one, and shows the remarkable popularity of the "Nonpareil" Incubator. The following machines were exported: One 60 incubator, to Bangkok, per ss. Palermo, order of Badman and Co.; one 30 incubator, to Mr. G. Railton, Bahia, S. America; one 30 incubator, to J. Malcolmson, Ceylon, per ss. Matiana; eight 10 incubators and two 100 foster-mothers, to Mons. Andre Masson, France; one 100 incubator and one 100 foster-mother, to C. Legal, St. Nazaire, France; two 100 incubators, to J. Guerdin, Belgium; one 60 incubator, to Bombay, per ss. Oceana, order of H. King and Co.; one 100 incubator and one 100 foster-mother, to A. McLennan, B. Columbia, per ss. St. Ronald; one 100 foster-mother, to Beira, per ss. Goorkha, order of Pieters and Co.; one 60 incubator and one 60 foster-mother, to S. America, per order of Army and Navy Stores; one 100 incubator and one 60 foster-mother, to J. Woodward, Kingston, Jamaica, per ss. Port Antonio; one 100 incubator, to G. W. Overman, Hong Kong, per ss. Jason; one 60 incubator and one 60 foster-mother, to T. Walls, Monte Video, per ss. Veronese; one 200 incubator and one 100 foster-mother, to R. Tutt, St. John's, per ss. Cartheginian; one 100 incubator, to J. A. Victor, Bombay, order of Smith, Sons, and Co.; one 100 incubator, to T. A. Clarke, Queensland, per ss. Perthshire; one 60 incubator, to E. Lamber, Cape Town, per ss. Clan Chisholm; one 100 incubator and one 100 foster-mother, to P. Smart, New Zealand, per ss. Wellington; one 100 incubator, to Sam Edwards, Pretoria, per ss. Clan Chisholm; one 60 incubator and one 60 foster-mother, to A. Birkenhead, Natal, per ss. Goth; one 60 incubator, to E. A. S. Fenwick, Yokohama, per ss. Beuarty; one 100 incubator, to B. F. Babcock, Buenos Aires, per ss. Hermione; one 60 incubator, to D. McHay, Rangoon, per ss. Bhamo; one 100 incubator, to A. Sykes, Penang, per ss. Denbighshire; one 60 incubator and one 60 foster-mother, to Idris Bros., Switzerland; one 30 incubator, to T. C. Knight, Constantinople, per ss. Chaucer.

A Colossal Undertaking.

To Messrs. Spratt's Patent, Limited, were again entrusted the welfare of the dogs exhibited at the Kennel Club's recent three-day Show at the Crystal Palace, the entries for which reached the enormous total of 3,346, and, needless to say, they carried out their task in a manner which reflected on them great credit. The total length of the benches used amounted to nearly a mile, and on them during the show were to be seen all sorts and sizes of dogs, from the Tiny Toy Pom to the huge St. Bernard, all of them enjoying their "Spratt's." The stand of this well-known firm, situated in its usual position in the centre of the hall, was undoubtedly the most imposing feature of the Show. Here were on view a multitudinous array of Spratt's foods and medicines, also four lifelike models of the late King Edward's Dog "Cæsar," which attracted enormous crowds of people. These models, tastefully draped with Royal purple plush, were illuminated by electric lights and surmounted by Union Jacks, the whole presenting a most striking spectacle.

Messrs. W. Cook and Sons' Exports.

During the past month Messrs. William Cook and Sons (the originators of the Orpington fowls), of Orpington House, St. Mary Cray, Kent, have shipped upwards of five hundred birds to poultry-keepers in many parts of the world, including the following: per ss. Herefordshire, a pen of Buff Orpingtons to Madras; to Rio de Janeiro, a pen each of White, Black, and Buff Orpingtons, White and Partridge Wyandottes, Light Brahmas, and Barred Rocks; per R.M.S. Kenilworth Castle, to Cape Town, a pen of White Orpingtons; to Maresquel, France, a pen of Buff Orpingtons; per North German Lloyd steamer, to South India, a pen each of Buff Orpingtons and White Leghorns; per ss. Tainui, to Wellington, N.Z., a pen of Minorcas; per ss. Blackwell, to Calcutta, four pens of Buff Orpingtons, also by same boat two pens each of Black Orpingtons, White Leghorns, Barred Rocks, White Wyandottes, and Rouen ducks; per ss. City of London, a pen each of White Orpingtons and White Leghorns; per ss. Assyria, a pen each of Black and Buff Orpingtons; a trio each of Blue Wyandottes and Blue Andalusians to Australia; to Ghent, a pair of Black Orpingtons; to Rio de Janeiro, a pen each of Houdans, Black Minorcas, Langshans, White Wyandottes, and Jubilee Orpingtons; per ss. Adriatic, to Toronto, two pens of Buff Orpingtons; to Nairobi, B. E. Africa, per ss. Goorkha, two pens each of Buff and White Orpingtons and Black Minorcas; to Valparaiso, two trios each of Black and Buff Orpingtons; per ss. Shadwell, two pens each of White Leghorns, Buff Orpington fowls, and Buff Orpington ducks, and one pen each of Black Minorcas and American Mammoth Bronze turkeys, and three Langshan cockerels; per ss. Minnehaha, to U.S.A., a consignment of Black, Buff and White Orpingtons; per ss. Norman Prince, two trios each of Black and Buff Orpingtons; per ss. Accra, to Sierra Leone, a pen of Buff Orpingtons; per ss. Malaga, to Lisbon, three pens of Buff Orpingtons; per ss. Tagus, to Oporto, a trio of Houdans; per ss. Arracan, two pens each of Black Leghorns, Black Orpingtons, and Houdans; to Rio de Janeiro on the 19th ult., a pen each of Blue Andalusians, White Wyandottes, Black Orpingtons, Barred Rocks, Buff Orpingtons, and Dark Dorkings; and per ss. Montreal, to Simcoe, Canada, a pen of White Orpingtons.

Stainthorp's Champion Poultry Foods.

Mr. R. Stainthorp, of Darlington, sends us his catalogue of poultry and pigeon foods and remedies, the sales of which are increasing every year, thanks to their excellent quality and moderate prices. The Champion Chicken Food certainly has some very distinct advantages, chief among which is the fact that it can be mixed just when it is required in either hot or cold water. For a dry food of corresponding quality the Challenge Chick Food, made by this firm, is recommended; it is made up of not less than ten different grains, seeds, &c. The Champion Poultry Food is designed for chickens of about three or four months old, that have been reared on the Chicken Food; while the Champion Turkey Food, Champion Pheasant Food, and Special Biscuit Meal are among the other specialities on similar lines. In addition to the foods and medicines business, Mr. Stainthorp now has a grass farm, on which he keeps Barred Plymouth Rocks, and supplies eggs and birds in season for exhibition or stock. He has specialised in this breed for twenty-nine years, and devotes himself to it exclusively.



**Is the BEST REMEDY FOR
SCALY LEG in Poultry.**

In Tins, 1s., 2s., and 3s. 9d.

PETOL (T.), 17, HART STREET, LONDON, W.C.